



DVARA
Holdings



The
Magic of
Resonance

Social Impact Report FY2023-24

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The Magic of Resonance

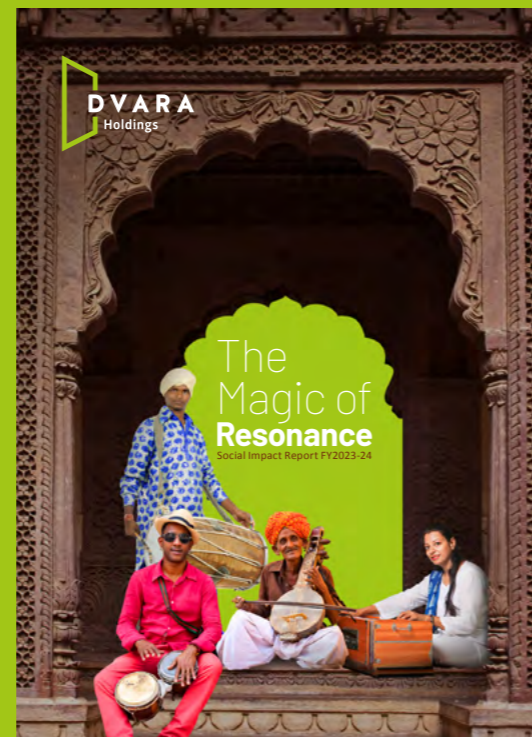
Resonance is a captivating phenomenon that permeates various fields, from physics to music and even our daily lives. At its core, resonance occurs when an object or system is driven to oscillate at its natural frequency, resulting in an amplification of energy and vibrational intensity. While rooted in scientific principles, this concept evokes a sense of magic due to its profound impact on our experiences and understanding of the world.

In music, resonance is pivotal in creating rich, immersive sounds. Instruments like violins and pianos rely on resonant cavities to amplify their tones. When a string is plucked or a key is pressed, it vibrates at a specific frequency, causing the air within the instrument's body to vibrate harmoniously. This interplay transforms a simple note into a complex symphony of sound, filling a space with warmth and depth. The emotional responses elicited by music can often be traced back to this resonant quality, allowing listeners to connect deeply with the art.

Beyond the tangible, resonance also finds its way into the metaphorical realms of human experience. It describes moments when ideas align, creating an impact larger than the sum of their parts.

This Magic of Resonance is what Dvara Holdings is trying to create in the area of financial inclusion. The companies we support are profitable enterprises. But their purpose goes beyond mere profits. They are equally focused on social outcomes. Through Dvara Research, an independent, nonpartisan, not-for-profit policy research institution, we also advocate systemic changes that can help every low-income household and every small enterprise in the financial sphere.

We believe the resonance of these three aspects—**Positive Returns, Social Impact, and Systemic Change**—is what is needed to improve the lives of India's underserved populations.



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Samir Shah
Co-Founder
& Executive Vice-Chair

Dear Friends,

I am pleased to write to you at the end of a year in which Northern Arc, the first company from our cohort of investee companies, has completed a successful Initial Public Offering (IPO) of its equity shares. The IPO was oversubscribed over 111 times.

This is, in a sense, an affirmation of our investment philosophy, and I am pleased to recount it in some detail.

Dvara Holding's Investment Philosophy

'Dvara' is derived from the Sanskrit word 'Dvarata,' which means access. This name reflects our vision of enabling opportunities and new beginnings for millions of low-income households. We are on a mission to ensure that every individual and every enterprise has complete access to financial services.

Dvara Holdings represents a confluence of three powerful goals – financial returns, impactful social outcomes and advocacy, through independent research for policies to better the lives of the underserved segments of India's population.

At Dvara Holdings, we straddle the worlds of impact investors, who are mainly focused on the impact of their investments, and financial investors, who are interested only in the returns. We believe we can profitably deliver meaningful outcomes to underserved segments.

We are a venture studio in the space of financial inclusion. The issues around financial inclusion are called 'White Space' problems. They are, by definition, not yet fully resolved and, as a result, offer exciting business opportunities. However, traditional financial investors, by their very design, tend to shy

away from them. Such investors need proof of solution and validation of solved problems. But these take time to build. During these periods, traditional investors tend to stay away.

This is where we at Dvara Holdings come in. We wear multiple hats – promoters, founders, operators, and investors. We have our own capital and are accountable to our Trustees who act in fiduciary capacity holding us accountable for our mission. This allows us to be patient. Our people, all of them with significant operating experience, build companies from scratch to address these 'White Space' problems. Once these companies demonstrate a product-market fit and give evidence of their profitability, regular mainstream investors can come and join the journey by participating in the capital structure.

In his seminal book *Fortune at the Bottom of the Pyramid*, the late Prof. C K Prahalad propounded two fundamental theses that were considered radical then. He postulated that a whole new world of opportunity would open up if we started recognising billions of poor as resilient and creative entrepreneurs and value-conscious consumers rather than as a burden. His second postulate was that serving the poor consumers would demand technological innovations, products and services, and business models.

Those two postulates quite pithily sum up what Dvara Holdings does. We do it through two vectors. The first is undertaking high-quality, independent and impactful research on the financial lives and challenges India's urban and rural poor face. This research allows us to do policy advocacy. The second vector is the Dvara Venture Studio. Through this, we incubate, nurture and scale up companies that leverage insights, technology, and innovations to enhance last-mile financial access and livelihood opportunities for the underserved.

Later in this Social Impact Report, you will read in detail about our cohort companies, their business models and the impact they have had. It will also give you a glimpse into our thinking.



COHORT ONE

In this cohort, we incubated and built three companies that were, in a sense, laying the rails for the train to financial inclusion. One was at the wholesale level, the second at a rural retail level, and the third provided the technological backbone.

Northern Arc

We began our journey in 2008, when India's financial landscape was radically different from what is today. Micro-Finance Institutions (MFIs) were the only companies trying to address the financial needs of the urban or rural poor. But in those days, they found it difficult to access the wholesale debt market.

Our first investment was in a company called Northern Arc, which was built to address this challenge the MFIs faced. In 2009, Northern Arc undertook the country's first microfinance securitisation transaction to enable funding to a micro-finance institution. After several such transactions, it went on to address other segments of customers, eventually having a highly successful IPO this year, as I mentioned earlier.

Dvara KGFS

While Northern Arc was addressing financial inclusion issues at a wholesale level, we incubated our second cohort company to address financial inclusion at a retail level, especially in rural areas.

Today, the JAM (Jan Dhan-Aadhar-Mobile) stack means that almost every Indian has a bank account. But that wasn't the case back in 2008. The rural poor did not have access to the formal financial system and were stuck in the grip of usurious moneylenders. This was what Dvara KGFS set out to address. KGFS stands for Kshetriya Gramin Financial Services (KGFS), which translates to "Regional Rural Financial Services." These were actually multiple independent companies each centered on a particular region. Each of them operated through a village-based branch network, which offered service to customers at their doorstep. After these regional companies had scaled up and provided proof of the business model, its profitability and social impact, we merged them into Dvara KGFS for ease of operations.

Today, Dvara KGFS has 390 branches in 112 districts across 10 states. Through its 10,000 digital agents (called Digital Mitras), it has a presence in 22,524 villages. It serves over two million customers and has ₹2,250 crore Assets under Management (AUM). Dvara KGFS has disbursed around ₹10,500 crore as loans and helped insure one million lives.

Dvara Solutions

Dvara Solutions started as the in-house technology team of KGFS, providing each of those regional companies with the IT backbones they needed. But then we realised that the solutions this team had built could also help other MFIs to address issues faced by the rural or urban poor. The IT solutions used by big banks were too expensive and too complex for their needs.

We realised that one arc of financial inclusion also encompasses providing affordable technological solutions to finance companies working in this space. After all, it is only with proper IT support that they can help more customers.

We then moved this technology team out and housed them in a specialised company called Dvara Solutions. At the end of FY2023-24, the company had over 23 financial institutions as clients, handled over four million customer accounts across seven asset classes, and had an AUM of ₹15,000 crore.



COHORT TWO

We spent ten years, from 2008 to 2018, scaling up our Cohort One companies. During this period, we also weathered several crises, including the global financial meltdown, the national liquidity crisis, and demonetisation.

In these ten years, India emerged as the fastest-growing major economy. When we started our journey, the priority was financial inclusion, which meant ensuring every Indian had a bank account, which would act as a foundation for their financial wellbeing.

This part, at least, has been largely achieved thanks to the advent of the JAM stack and Direct Benefit Transfer (DBT). Most Indians now have bank accounts. But what has also become clear is that the next step – ensuring positive financial outcomes – was still a distant dream.

To address this issue, we invested in our second cohort of companies. These companies have a few things in common. In keeping with our core philosophy, they address 'White Space' problems. They all serve either underserved populations or underserved financial needs. Lastly, they all use innovative technological solutions and provide service to their customers at their doorsteps.

Dvara E-Registry

A small-holder farmer in India is often seen as someone who needs support and handouts. Our belief, however, was that with the right technological inputs, data analytics, and an infusion of affordable credit, such farmers can become successful entrepreneurs. Remember Prof. Prahalad's first postulate?

Dvara E-Registry has devised a unique Khet Score using technologies like remote sensing, AI, and machine learning to analyse various parameters of a farmer's performance over three years, including crop health, weather conditions, and land productivity. This data generates a score that helps assess the farmer's creditworthiness, allowing financial institutions to lend to farmers who might otherwise be excluded from the formal credit system.

Because small farmers are often intimidated to approach banks for loans, E-Registry has developed a doorstep financing model where all activities – document collection, fund disbursement, and loan repayment – are handled directly at the farmer's location.



The third pillar of E-Registry is market access – both to inputs and produce. This is done through Farmer Producer Organisations (FPOs). E-Registry actively encourages the formation of these FPOs, which can aggregate both demand (for inputs) and supply (of produce), thereby ensuring small farmers get the best prices possible.

Dvara E-Dairy

The story of Dvara E-Dairy is essentially Prof. Prahalad's second postulate in action. By all accounts, India is a dairy powerhouse. We have a third of the global cattle population and are the world's largest producer of dairy products.

There are hundreds of union and state government schemes with massive budgets intended to benefit India's 80 million small and marginal dairy farmers. Yet most farmers lack access to affordable credit or cattle insurance. The hurdle is simple – financial institutions have no way to uniquely identify cattle.

Dvara E-Dairy has solved this issue using a patent-pending technology. They have perfected a unique biometric identity for cattle based on their muzzles. The company has then overlaid it with an AI-driven algorithm based on veterinary science to measure the health of the cattle. It further approximates (to a >90% accuracy) the milk yield from the cattle and the resultant cash flow. This is bundled into what is called a 'Surabhi' score. (Surabhi is a cow in Sanskrit). With the Surabhi score, financial institutions can find it easier to make decisions about cattle loans, and the unique biometric identity mitigates the risk of fraud for insurance companies.

In a sense, this is tackling the issue of financial inclusion from the opposite direction, using technology to give financial institutions access to customers!

Dvara Money

Dvara Money was launched as a savings and wealth creation platform for gig workers. India's gig workforce is expected to expand to 23.5 million workers by FY2029-30, three times the estimated 7.7 million in FY2020-21.

This often-overlooked demographic has very specific needs and challenges. Take a simple question of taxes. If you look at the average annual income of the gig workers, they all fall below the minimum income tax bracket. However, the platforms they work with have to statutorily deduct taxes at source. Since none of gig workers file income tax returns, they cannot claim tax refunds. These taxes are often equivalent to a month's income.

Dvara Money has developed an app called Spark Money, which helps with income tax filing and offers other financial services such as UPI-enabled transactions, digital gold, and insurance products.

In tune with the philosophy of doorstep customer service, Dvara Money has set up a network of Spark Dost Centres across key locations. Such centres are staffed by Spark Dosts (friends), who are specially trained to understand the needs of the local region and offer customers suitable financial products in a simple, secure, and transparent process.

Dvara SmartGold

If there is one financial asset class that all Indians understand and love, it's gold. Dvara SmartGold leverages this love by offering digital gold as a tool for savings and long-term investments.

The advantage of digital gold over buying a gold ornament is that customers save about 15-20% on making charges. Using Dvara SmartGold's app, customers can buy and accumulate gold without visiting a jewellery store. This is akin to provident fund savings. For each purchase, the equivalent amount of physical gold is backed and vaulted by the company's trusted vaulting partner, ensuring security and accountability.

Using the app, customers can redeem their digital gold savings anytime. They can also use their gold savings as collateral and get loans at affordable rates.

Since launching the SmartGold app in 2019, Dvara SmartGold has signed up over 1.5 Lakh+ customers and has about 125 kg of customer gold saved on its platform at any given time, showcasing the viability of the idea and its utility to customers.



COHORT THREE

As I said earlier, in Cohort One, we laid down the rails for the financial inclusion journey. Through our investments in Cohort Two companies, we moved the needle from financial inclusion to the financial wellbeing

of specific underserved target segments.

In cohort three, we moved beyond the traditional financial offerings of credit, savings, investments, and insurance. The lens we used was to try to address specific problems that cause financial hardship to India's poor.

So far in this cohort, we have incubated only one company, though we are studying a few ideas and talking to a few promoters. The idea that we have incubated is in the area of health.

Dvara Health Finance

Dvara Health Finance (DHF) has set itself the mission of ensuring that spending on healthcare translates into better health and financial outcomes. This must be seen in light of the fact that every year, approximately 10% of Indians fall into poverty because of a hospitalisation.

DHF is currently focused on tackling two ailments that plague India – hypertension and Type-2 Diabetes. According to the National Family Health Survey, 24% of Indian men and 21% of women suffer from hypertension. Over 10.1 crore people have diabetes.

The company is trying to overturn the traditional "Fee-for-Service" model prevalent in private sector healthcare in India and changing it to a "Fee-for-Value" model. They are doing this through NEEM, an affordable subscription-based package that combines a health team (health worker + digital health platform), affordable medication and financial solutions needs.

A pilot project is currently being rolled out in Satara District of Maharashtra. The first objective is to reach 100,000 paying members, primarily drawn from taluka and village levels.



Policy Research

Policy and advocacy work are foundational to Dvara's work. Dvara Research, our Section 8 company, is an independent, nonpartisan policy research institution. It has deeply analysed and carefully written about financial inclusion and social protection in India from policy, regulatory, and practitioner perspectives. All this is anchored in its mission -- to ensure that every low-income household and every small enterprise has complete access to suitable financial services and social security.

Dvara Research has been involved in several policy-making platforms in the financial inclusion space. It has worked with the RBI, Ministry of Finance, SEBI, Insolvency and Bankruptcy Board of India, PFRDA, NABARD, and Ministry of Urban Development, among others. It was the technical secretariat to the RBI Committee on Comprehensive Financial Services for Small Businesses and Low-Income Households.



Future Outlook

India is an incredibly large, complex, and diverse country. This poses huge challenges for the financial system, which, out of necessity, tries to function with a 'one size fits all' model. The result is that despite

strenuous efforts by the government, regulatory authorities, and banks, the financial wellbeing of the poor often remains a distant dream.

We believe that a good financial system should deliver both inclusion and stability. Given India's size and diversity, digital channels are critical for servicing populations at scale. However, our experience shows that given the vast gulf in digital literacy between different sections of the population, at least for the foreseeable future, real financial wellbeing can only be achieved through an "assisted digital" model.

All the companies that Dvara has invested in either address specific problem statements or target populations. In terms of sheer numbers, each of these is massive and represents multi-decadal growth runways for the businesses. In addition, each represents an opportunity to make a significant social impact.

As we continue to grow and scale up our existing cohort of companies, we are actively looking for more opportunities to create a social impact while addressing issues of the financial wellbeing of the underserved.

While looking forward, we will do so through three lenses. The first is product, the second is distribution and third continues to be building new rails. What are the new financial products that are to be built for Bharat, how are they to be distributed, what new rails are to be built? That is our quest right now.

Samir Shah

Co-Founder
& Executive Vice-Chair

TAPPING CREDIT OPPORTUNITIES IN INDIA'S EMERGING SECTORS

**NORTHERN
ARC**

SUSTAINABLE DEVELOPMENT GOALS

Northern Arc's mission is to enable access to finance for the underserved segments in India in an efficient, reliable, and scalable manner. By virtue of its business model, products, and its multi-channel approach Northern Arc directly contributes to 10 United Nations Sustainable Development Goals (SDGs) and many other SDGs indirectly through its network of Originator Partners.



Genesis of Northern Arc

Bono, the famous musician and activist against extreme poverty, once reportedly said, "Give a man a fish, and he'll eat for a day. Give a woman microcredit, and she, her husband, her children, and her extended family will eat for a lifetime." This statement perfectly captures the transformative power of credit in improving the lives of the poor.

For the underserved, credit is more than just a financial tool; it is a powerful catalyst for growth, innovation, and the realisation of aspirations. Thanks to Grameen Bank's enormous and much-acclaimed success in Bangladesh, several Micro-Finance Institutions (MFIs) and non-banking finance companies (NBFCs) are willing to lend to informal sections of society—sections that traditional banks, with their emphasis on scale and paperwork, tend to oversee at times.

The fundamental question surrounding lending to the informal section is - where do such MFIs and NBFCs raise capital from to lend to the underserved segments?

This was one of the core challenges Northern Arc (formerly IFMR Capital) was established to address. Northern Arc's endeavour has been to bridge the gap between capital providers and non-banking financial institutions that extend credit to underserved segments of the Indian population across four focused sectors:

Microfinance: Through partnerships with MFI originators and its direct channels, Northern Arc aims to ensure access to credit for low-income individuals and small businesses, promoting financial inclusion.

MSME Financing: Through tailored solutions, developed both directly and with MSME originator partners, Northern Arc supports the growth and sustainability of small and medium enterprises.

Vehicle, Consumer, and Affordable Housing Finance: By facilitating lending through its network and directly, Northern Arc enhances access to essential assets and improves living standards.

Agricultural Supply Chain Finance: In collaboration with partners, Northern Arc offers funding solutions that optimise operations across the agricultural supply chain and empower rural communities.

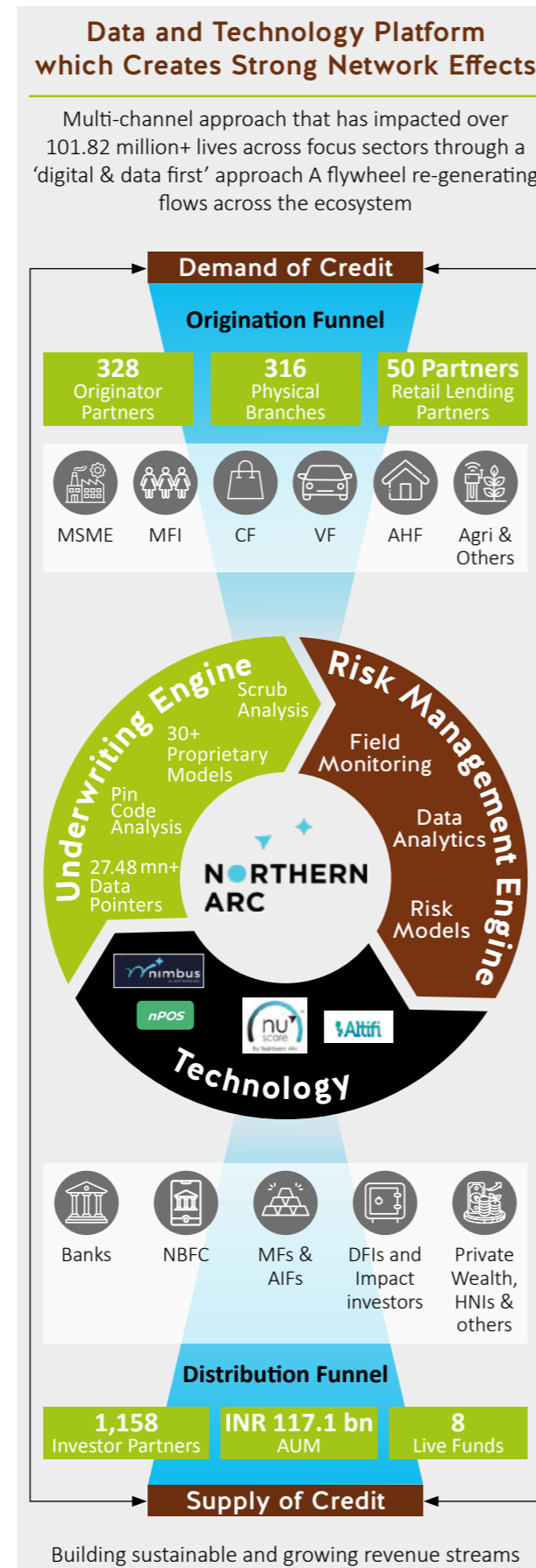
Through fund management and placements, Northern Arc strategically channels debt capital into the stated sectors, driving meaningful social and economic impact.

Northern Arc's unique network approach connects Originator Partners, retail lending entities, direct customers, and investor partners to create a robust ecosystem. This ecosystem is designed to offer diverse solutions, expanding credit access for underserved households and businesses, and fostering sustainable development. Presented below are key milestones, innovative structures and a year-by-year overview of Northern Arc's journey thus far.

Northern Arc's Business Model

Today, Northern Arc operates as a diversified financial services platform with a differentiated and comprehensive play on the retail credit ecosystem in India. The simplest way to visualise what Northern Arc does is through its 'flywheel.' Northern

Arc's ecosystem, linked through the flywheel, acts as a catalyst in bridging the gaps in various sectors by partnering with Originator Partners and retail lending partners to effectively reach borrowers. This flywheel is presented below:



101.8+ mn
LIVES IMPACTED

42+ mn
WOMEN EMPOWERED

1.6+ mn
CUSTOMERS
DIRECTLY IMPACTED

₹1.73 tn
FINANCE FACILITATED



Northern Arc caters to the credit needs through three channels – i) Lending, ii) Placements and iii) Fund Management.

Lending:

From its balance sheet, Northern Arc extends financing in the following manner:

- Intermediate Retail Lending:** Northern Arc lends to, and guarantees the borrowings of, its large network of financial institution partners, technology platforms and other entities that act as business correspondents to originate financial exposure (collectively, "Originator Partners (OPs)"). It finances the OPs in a variety of ways depending on their specific needs, including lending to and investing in debt securities issued by OPs primarily for the purpose of retail on-lending by them, providing guarantees for their borrowings, and investing in retail portfolios originated by these OPs through portfolio financing transactions such as rated securitisation and direct assignment.

- Direct to Customer Lending:** Northern Arc extends loans directly to underserved households and businesses in the MSME, MFI, consumer, and vehicle finance sectors through a 'phygital' (physical plus digital) approach. This approach combines its technology platforms and data-first approach with an infrastructure network of 316 physical branches across India and over 50 select Retail Lending partners who enable direct to customer lending. Northern Arc's rural financing business is run by its dedicated rural finance partner subsidiary, Pragati.

Northern Arc's lending AUM – indirect and direct combined -- stands at ₹117.1 billion as of March 31, 2024.

Placements:

Through its technology platform, Nimbus, Northern Arc works with a large network of investors across different investor classes who use it to access opportunities to invest in under-

MILESTONES

2009

- Embarked on the journey to promote financial inclusion by facilitating finance for the microfinance sector

2010

- Arranged and structured India's first pooled multi-originator securitisation transaction (MOSEC)
- Completed the first placement of a microfinance securitisation with a private individual investor

2011

- Entered the MSME finance sector

2013

- Entered the vehicle finance and affordable housing finance sectors
- Completed India's first listed securitisation of microfinance loans

2014

- Raised equity from LeapFrog Financial Inclusion India Holdings Limited
- Obtained SEBI registration for NAIM's first alternative investment fund



served sectors in India. This includes structured and syndicate financing through various debt, credit-enhanced debt and portfolio financing products for its OPs. Northern Arc also credit enhances/ co-invests in transactions as required to achieve the target credit rating and/or provide comfort to its investors. This approach differentiates Northern Arc from other facilitators in the market. Since inception, Northern Arc has cumulatively placed ₹1,019 billion for its OPs.

Fund Management:

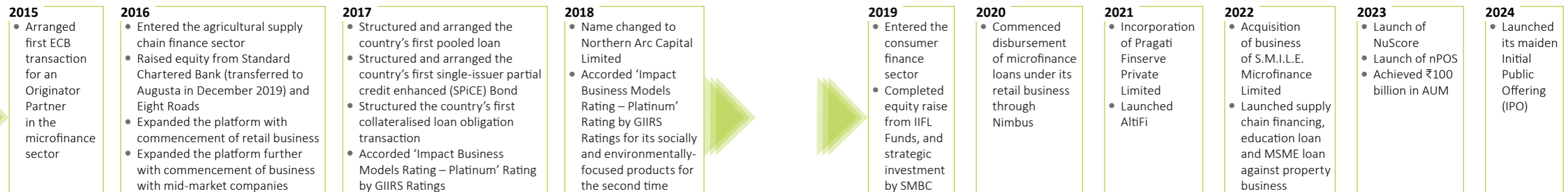
Northern Arc's fund management channel is operated by its subsidiary, Northern Arc Investments Manager (NAIM). It manages debt funds that invest largely in the subset of OPs and mid-market companies in line with the respective funds' investment mandates. In 2021, NAIM obtained its registration as a portfolio manager from the Securities and Exchange Board of India (SEBI) to conduct Portfolio Management Service (PMS), and launched its first PMS fund in 2023. NAIM handles an AUM of ₹28.5 billion across eight live funds as of March 31, 2024. Also, as of March 31, 2024, the cumulative fund deployment is over ₹120 billion across ten alternate investment funds (AIFs) and three PMS funds.

The flywheel effect:

- Through its Lending channel discussed above, Northern

Arc identifies OPs on the basis of its credit underwriting framework that is designed to identify and nurture companies that are close to their customers and share the similar goal of catering to the credit requirements of the under-served categories, and have the ability to grow with access to debt.

- Most of its OPs are initially relatively smaller in scale and typically have limited avenues of raising debt. This gives Northern Arc the opportunity to build long-term relationships with first-mover advantage and derive benefits from continued engagement as the OPs scale-up their businesses and grow their credit requirements.
- Northern Arc also partners with Retail Lending Partners to lend to Direct to Customer Borrowers, where the former provide necessary support in various functions such as loan origination, execution of loan documents, disbursements and collections.
- In addition to assuming on-balance sheet exposure through loans and investments, Northern Arc cater to the varying credit requirements of its OPs by enabling credit for them through its placements' channel, which predominantly includes structures such as securitisation



and direct assignment which involve investment in their retail pools, and arrange, syndicate and guarantee debt for fund raising from Investor Partners.

- Northern Arc has also built partnerships with Investor Partners across different investor classes, including banks, asset management companies, insurance companies, DFIs, fund-of-funds, AIFs, foreign portfolio investors, global investment vehicles, family offices, private wealth managers, foundations and HNIs, who access opportunities to invest in the under-served households and businesses in India through Northern Arc's platform. For its Investors Partners, Northern Arc also provides due-diligence capability, customised approach to underwriting, on-going monitoring/ surveillance, skin-in-game/ co-participation by itself, and the execution efficiency that its platform provides.
- The synergies and seamless integrations create a 'flywheel effect,' which gets accentuated with more transactions and incremental flow of data over time.

significantly reduces processing time, ensuring quicker loan disbursement and reducing the need for manual intervention. This efficiency directly translates into higher transaction volumes and better partner integration, positioning Northern Arc as a preferred technology partner in the lending ecosystem.

Altifi democratises access to fixed-income instruments for HNIs, mass affluents, retail investors and corporates, creating new revenue streams and attracting a broad investor base beyond institutional investors. It also increases liquidity and drives investment into the debt capital markets. This platform also enhances Northern Arc's role in financial inclusion by making investments accessible to a broader audience.

Nu Score is a cloud-based API-enabled solution that financial institutions can use to aid in their loan underwriting process. As Northern Arc expands into new markets and borrower segments, NuScore will mitigate risks while driving financial inclusion and sustainable growth.

Northern Arc's Technology Suite

Northern Arc's scalable business model is built on a foundation of its proprietary end-to-end integrated technology product suite customised to multiple sectors.

Its four main pillars are:

Nimbus is a curated and proprietary debt platform that enables seamless credit flow between Northern Arc and its OPs through the balance sheet or investors. This flexibility allows Northern Arc to efficiently manage and scale its credit offerings while maintaining robust partner relationships. By streamlining credit transactions and ensuring transparency, Nimbus enhances the speed and volume of credit disbursements, driving operational efficiency and market reach.

nPOS is a cloud-based API-enabled market infrastructure platform that optimises the partnership lending and co-lending process, connecting banks and financial institutions with Northern Arc. By automating workflow relating to loan origination, underwriting, and management, nPOS

Northern Arc's Asset Quality

Northern Arc's differentiated credit underwriting processes and risk models have helped it consistently deliver strong asset quality and risk-adjusted returns across business cycles and macro events. Its risk models are supported by a substantial data repository comprising over 35 million data points on portfolios across multiple sectors, that Northern Arc has assessed throughout its journey, and qualitative field-level insights that aid credit assessment and monitoring. This has enabled Northern Arc to have low Gross Non-Performing Assets (GNPA) and Net Non-Performing Assets (NNPA) ratios of 0.45% and 0.08%, respectively as of March 31, 2024.

In September 2024, Northern Arc's Initial Public Offering (IPO) of ₹7.77 billion, including a fresh issue of ₹5.0 billion, was oversubscribed nearly 111 times, reflecting strong market confidence in its robust business model, high governance standards and the vast growth potential of financial inclusion. The fresh infusion of funds would further augment Northern Arc's growth story.

FINANCIAL SERVICES FOR THE RURAL POOR

Through its vast branch network and digital agents, Dvara KGFS is providing critical financial services to the rural poor



SUSTAINABLE DEVELOPMENT GOALS

At Dvara KGFS, our mission and operations align closely with multiple United Nations Sustainable Development Goals (SDGs), enabling us to make a tangible impact on SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities) by providing financial services to underserved rural populations. Financial inclusion empowers individuals and households to improve their economic wellbeing and build long-term wealth. We also contribute to SDG 5 (Gender Equality) by offering women in rural areas financial products that allow them to actively participate in economic activities. Our focus on developing accessible branch infrastructure reflects our commitment to SDG 9 (Industry, Innovation, and Infrastructure), bringing modern financial services to remote regions, while our Water, Sanitation, and Hygiene (WASH) loans help our customers access clean water and sanitation advancing SDG 6 (Clean Water and Sanitation).



In 2004-05, according to a World Bank report, 28% of India's rural and 26% of India's urban population lived below the poverty line – about 300 million people. In the last two decades, considerable progress has been made in ameliorating poverty. By 2023, according to the UNDP's Multidimensional Poverty Index (MPI), the poverty rate, had come down to a fraction less than 15% (19.2% in rural areas and 5.2% in urban areas). With a population of over 1.4 billion, this still translates to 210 million poor people living in poverty.

Dvara Kshetriya Gramin Financial Services (KGFS) was founded in 2008 with a mission to ensure that every individual and household in rural India has access to essential financial services.

Back in 2008, the term 'Financial Inclusion' had a different connotation, compared to how it is perceived today. Earlier, this essentially meant getting the rural poor into the financial mainstream by opening savings bank accounts and offering them simple financial products. Since 2014, the government's push on the JAM (Jan Dhan accounts, Aadhar and Mobile) stack has ensured over 90% of Indians have access to banking services. However, a combination of factors, including diffidence while dealing with formal banking channels coupled with sparse penetration of bank branches, has meant that these bank accounts have been used basically for Direct Benefits Transfers under various schemes.

At Dvara KGFS, our story mirrors this changing rural inclusion landscape in the last 16 years.

Our Model

Our model is based on three key pillars. The first is focused geographic commitment ensuring complete population coverage. Each branch is responsible for a specific catchment area and aims to serve the entire population, enrolling as many clients as possible. The second principle is to take a client-wealth management approach. KGFS staff recommend a customised set of services for each client based on in-depth household assessments. The third pillar is providing access to a broad range of products. We work primarily as an agent of banks and insurance companies, offering each client smooth access to a broad range of services.

Our operations are built on a profoundly customer-centric approach. Branches are designed to create an open, welcoming environment where customers feel comfortable engaging with staff, fostering trust and transparency. Our research shows computers tend to intimidate customers from rural areas. While used extensively in our operations, all such IT infrastructure is kept away from the customer's sight.

We try to ensure that all our branches are located on the ground floor to accommodate individuals with physical disabilities, reinforcing inclusivity. Another key aspect of our customer-centricity is the "sons and daughters of the soil" approach, where local employees serve their own communities. This not

2.53+ mn
HAPPY CUSTOMERS

390
BRANCHES

112
DISTRICTS

10
STATES

CASE STUDY 1



After moving to her in-laws' village Mahalakshmi's husband encouraged her to join him in managing their farm. She and a few friends later took a group loan from Dvara KGFS, which helped them invest in quality seeds and equipment, enhancing their agricultural income. As their farm stabilised, Mahalakshmi expanded into dairy farming, using another KGFS loan to buy cattle. This added a steady income source that wasn't dependent on seasonal changes. Today, Mahalakshmi is pleased to be able to support her family and provide for her daughter. She values the opportunities the KGFS loans have provided and appreciates the supportive environment that helped her family build a more secure future.

only fosters trust but also ensures that employees understand the local socio-economic dynamics, leading to more effective financial service delivery.

Our model incorporates the belief that geographical focus at all levels helps customisation. For example, staff only use local dialects to communicate with each other and with clients. All signage and documents are in the local language, and branches adjust timings for local convenience. The model is also based on the idea that local ties will help the institution react more swiftly to local events, such as a bad harvest or low rainfall, for instance, by relaxing repayment dates or extending emergency loans.

Much before biometric verification using Aadhar became ubiquitous in KYC processes, we pioneered its use in the Indian financial system. Post-enrolment, we gather detailed financial information about our customers. This helps us to create a Financial Wellbeing Report (FWR). We use our proprietary tech-enabled engine and consider the customer's financial standing, needs, and goals to produce this FWR. Based on this FWR, we provide tailored financial recommendations that suit every individual's unique circumstances.



Promoting public hygiene

WASH Loans, offered by Dvara KGFS in partnership with Water.org, are designed to address the critical issues of Water, Sanitation, and Hygiene in rural communities. These loans aim to improve access to clean water sources, build proper sanitation facilities, and promote hygienic practices among rural households. These loans empower beneficiaries to invest in essential WASH infrastructure, such as water wells, filtration systems, toilets, and handwashing stations. With affordable interest rates, the loans are accessible to customers across economic backgrounds, ensuring inclusivity.

The impact of WASH Loans is significant, leading to improved health outcomes, reduced waterborne diseases, and better overall well-being in rural communities. The initiative aligns with Goal 6 of the UN Sustainable Development Goals, aiming to provide clean water and sanitation for all. The loans are tailored to meet the specific needs of the beneficiaries, empowering them to invest in essential WASH infrastructure and facilities. With the financial support from these loans, individuals and communities can construct water wells, install water filtration systems, build toilets, and create handwashing stations.

In FY2023-24, Dvara KGFS disbursed 3,52,399 loans amounting to ₹1,623.33 crore. Of these, 10,567 loans were specifically designated for WASH projects, constituting 3.4% of the overall disbursement. States like Odisha and Karnataka contributed 42% and 37%, respectively, to the total WASH Loan disbursements, showcasing the initiative's commendable geographical reach.

An essential aspect of the WASH loans is their focus on inclusivity and gender empowerment. All Loans are disbursed to women, who play a pivotal role in ensuring proper utilisation of funds for WASH projects in their households and communities. Additionally, mature women (over 36 years) comprise 15% of the total women beneficiaries, highlighting their involvement in decision-making for WASH initiatives in rural areas.

The initiative's sustainable growth is evident from the consistent monthly growth rate of 12% in loan disbursements. Through these loans, rural households can access clean water sources and sanitation facilities, improving health and reducing waterborne diseases.

One of the key advantages of WASH Loans is their affordability and accessibility. Dvara KGFS ensures that the loans are affordable for customers across the economic spectrum, including those at the bottom of the pyramid. The interest rates are designed to strike a balance between affordability and sustainability, making it feasible for rural households to avail themselves of these loans.

The success and impact of Dvara KGFS and Water.org's WASH Loans can be credited to their innovative approach, affordability, inclusivity, and dedication to fostering a sustainable and hygienic environment in rural India. These loans transform lives, and access to clean water and improved sanitation practices are promoted. The initiative actively strives to create sustainable solutions for the water and sanitation challenges faced by underserved communities in rural India.

A Wealth Management Approach

Dvara KGFS is unique in adopting a wealth management approach to our rural, often poor customers. This approach comes from an understanding that the poor, who are not financially savvy, need solutions tailored to their needs. Our FWR plays a crucial role in providing these customised solutions.

For example, highly indebted households are advised to refrain from further borrowing and to refinance with cheaper debt. To meet their financial goals, households with low current income are encouraged to think about ways to bridge the gap, and are offered advice on how to fund business expansion, where relevant. With this approach in mind, we group our products and solutions as follows:

Plan: These are financial tools that help people manage short-term liquidity needs. These include savings, money market investments, short-term loans (secured and unsecured), and payment services.

Grow: These products allow households to increase income or reduce expenses. This category includes working capital and term loans for businesses, higher education loans for students, and refinancing debt.

Protect: These products mitigate risk and include many types of insurance (e.g., life, accident, health, shop, and livestock).

Diversify: This category includes investment instruments designed to provide inflation protection and offer better risk-adjusted returns. These products help households diversify their assets away from land or livestock shifting toward assets that are better protected if the local economy hits a slump. Products in this category include pensions and, potentially, equity-index funds.

Rolling Out, Testing and Studying Impact

At Dvara KGFS, our story can be divided into two distinct phases. This was based on Dvara's philosophy of being a patient investor and seeking to create a resonance between profitable businesses and social outcomes.

The first phase, which lasted from 2008 to 2015, was all about rolling out our services in three areas with distinct geographic, socio-economic, and cultural profiles, assessing our business model, and studying the social impact our operations could achieve.

We began operations in Tamil Nadu, then moved into Odisha and later into Uttarakhand. Tamil Nadu is the most prosperous of the three states, with fertile agriculture regions. In Odisha, our operations focused on the coastal belt, which has different socio-economic dynamics, while Uttarakhand's seasonal economy, driven largely by tourism, necessitates a more innovative approach.

We tied up with Axis Bank as its Banking Correspondent

CASE STUDY 2



Jesintha Mary, originally from Chennai, moved to a village after marriage, which initially felt daunting. She decided to open a photocopy shop and approached Dvara KGFS for a loan. Not only did she get her loan and open her copying shop, but at the KGFS office she learned about the KGFS Digital Partner role. Jesintha enrolled as a Digital Partner and this role transformed her life, giving her financial independence and a stable income. Today, Jesintha is proud of her identity and success as a KGFS Digital Mitra.

and opened virtual savings accounts for our customers. We offered joint-liability loan products to groups of women. We also offered pension accounts under a mandate from the Pension Fund Regulatory Authority of India and money market mutual funds as an alternative that can offer better returns than savings bank account interest rates. (Because of regulatory changes, we had to discontinue these two offerings at a later date.)

To study the social impact of our business, we partnered with researchers at the Yale University who collaborated with researchers from Duke University and the University of Warwick. The research team conducted a randomised controlled trial to measure the impacts of KGFS services on poverty reduction, entrepreneurship, agricultural investments, social networks, mental health, and female empowerment – the first large-scale experimental impact evaluation of improved access to formal financial services for rural populations. The results showed that KGFS services were associated with an 8% reduction in poverty and reduced psychological stress. The rich data produced by the project, also show that credit access has positive effects on non-agriculture self-employment and labour demand, demonstrating that rural banks can reduce poverty through both direct and indirect channels.

Growth Momentum

By FY2015-16, our business model had been tried and tested. We had faced and overcome several challenges, and the positive social impact of our business model was evident. Dvara KGFS was now ready to leap into the next orbit and chase growth.

4 mn
CUSTOMER
ACCOUNTS
HANDLED

We overhauled our operations to centralise them so that we could scale more efficiently. Geographical expansion resumed in 2017 with new operations in Odisha and Karnataka. In 2018, we acquired Varam Capital, a micro-finance company, which would go on to provide a foothold in Chhattisgarh and add valuable IT capabilities. Later, in 2023, we acquired Sajja Finance, which further allowed us to expand our geographic footprint.

This phase also saw us navigate several significant external challenges, including demonetisation, cyclones, and the COVID-19 pandemic. Despite these obstacles, the growth momentum continued, mainly because of adopting an omnichannel strategy.

Omnichannel Strategy

When we began operations, connectivity in rural heartlands was an issue. As a result our focus was exclusively on branch-based operations. However, thanks to the data revolution, internet connectivity has become ubiquitous since 2016, and data prices in India are among the lowest in the world. This allowed us to adopt an omnichannel strategy.

Digital Mitra: The data revolution allowed us to launch our 'Digital Agent' strategy. These digital agents – called 'Digital Mitra' (Mitra translates to 'Friend'), are typically more entrepreneurial customers who are equipped with a

10,300+
DIGITAL MITRA AGENTS

smartphone and our specially developed app. The Mitras help the rural folk by extending services like cash withdrawal using the Aadhaar-Enabled Payment System (AePS) services, bill payments using Bharat Bill Pay System (BBPS) and they also act as service point for all the KGFS customers. These Digital Mitras are our force multipliers, enormously extending our geographical reach.

MyKGFS WhatsApp: Our self-service WhatsApp Chatbot channel allows users to avail various services, including digital EMI payments.

KGFS Partnerships: Through our Business Correspondent Partnership model, we collaborate with FinTechs to originate business and provide better products and services to customers.

Tele-calling: Our inbound and outbound call centres are another channel through which we reach potential customers for selling, upselling, and cross-selling.

India's vast and underserved rural population provides a runway for multi-decadal growth for companies like Dvara KGFS, which are focused on providing tailored wealth management solutions to this segment. Our growth story, in that sense, has only just begun.



₹9,500 cr
DISBURSED AS LOANS

₹2,251 cr
ASSETS UNDER MANAGEMENT

1.3 mn
LIVES INSURED

ENABLING FINANCIAL INSTITUTIONS TO BE MORE CUSTOMER-CENTRIC

Dvara Solutions' technological backbones are helping many financial institutions



SUSTAINABLE DEVELOPMENT GOALS

At Dvara Solutions, our mission is To build a trusted tech-fin platform of services and partners that enables flow of credit from lenders to MSMEs at the lowest cost of credit, lowest loan processing cost and the the lowest end-to-end turnaround time. Our work is closely aligned with several Sustainable Development Goals, especially SDG 1 (No Poverty), SDG 5 (Gender Equality), SDG 9 (Industry, Innovation, and Infrastructure) and SDG 10 (Reduced Inequalities).





At Dvara Solutions (DS) we began as an in-house engineering team for Dvara KGFS with an aim to digitise the Loan Origination (LOS) and Loan Management Systems

(LMS). The idea was to create an end-to-end lending tech solution for institutions involved in bottom-of-the-pyramid lending. Our engineering team successfully developed the first versions of Loan Origination (LOS) and Loan Management Systems (LMS) for Dvara KGFS. Over time, Dvara Solutions evolved into an independent technology service provider, expanding its reach to cater to a larger community of lenders across India.

The transformation of bottom of the pyramid lending in India over the past decade and a half has shaped our journey. Initially dominated by group loans or Joint Liability Groups (JLGs), the market since has diversified, incorporating more complex financial products such as Micro Loans against Property (Micro LAP), gold loans, MSME loans, Supply Chain Finance, and individual loans. Dvara Solutions, with our suite of products, has followed this evolution closely, providing lending companies a comprehensive list of product designs, treasury and audit management solutions and third-party integrations.

Early Challenges

With early success within our parent company, Dvara KGFS, was a key driver for our expansion into the broader market. The team gained hands-on experience in the field, giving valuable insights into the unique challenges the lenders face while providing credit to rural and urban poor. It wasn't until a couple of years later, after refining our offerings, that we secured our first external client.

The initial phase presented typical challenges for a young tech company: securing the necessary investments for product development and building a solid team capable of scaling the business. Moreover, transitioning from an internal service provider to a commercial entity required adjustments to business strategy and technology offerings.

The Journey Thus Far

Since its inception, Dvara Solutions has achieved several key milestones, transforming from a specialised engineering team to a tech-fin company. One of our first major pivots came when FinTech companies began offering services such as e-KYC, bank statement analysers, e-sign, and e-NACH, which were critical to lenders. Dvara Solutions integrated these services via APIs into our flagship platform, Perdix, taking the first steps from being a product to platform offering.

In 2022, we made our second major pivot with the launch of the Perdix Liquidity Platform (PERDIX LP). This offering was in response to new co-lending guidelines from the Reserve Bank of India (RBI). Perdix LP is an LOS LMS-agnostic middleware that enables financial institutions to manage partnership-based lending models such as co-lending, Direct Assignment (DA), Pass Through Certificates (PTCs) and Securitisation.

To provide an independent focus to our innovation agenda, more recently in 2023, DS opened a small office within the IIT Dharwad Campus. This initiative is in association with the Karnataka Digital Economy Mission.

The Centre of AI (Artificial Intelligence) for FI (Financial Inclusion), aims at harnessing the power of young minds via internship programs to final year students at the university,

with the objective of addressing future looking challenges which the communities may face. AI will, if not already, take centre stage in both design and delivery of lending solutions in the future, and DS is getting ready for it at the Centre of AI for FI.

₹15,000 cr
AUM HANDLED

to quickly implement Perdix's solutions without lengthy customisations, while integrated API-led services provide advanced analytics for credit decisions. Perdix's user-centric design ensures

that field officers operating in remote areas can use the platform seamlessly, often on basic smartphones and in local languages, making it invaluable for financial institutions focused on rural lending.

Operations and Impact

In FY2023-24, our operations have been focused on strengthening our core offerings, particularly the PERDIX LP platform. The company's geographical focus remains primarily in India, with around 23 financial institutions currently using our solutions. This customer base has grown steadily, with many institutions benefiting from the digital transformation of their operations. The company's solutions have empowered lenders to offer faster, more efficient services while maintaining a strong focus on customer-centricity.

Over the past several years, we have maintained a steady Compounded Annual Growth Rate (CAGR) in terms of Assets Under Management, proving our growing influence within the non-banking financial companies' (NBFCs) community in India. We have contributed to financial inclusion across rural and urban India through partnerships and innovative technology solutions.

Innovation in Action

We are committed to innovation, and each new product offering aims to solve specific industry challenges. The introduction of PERDIX LP in 2022 marked a significant shift in the company's business model as it expanded beyond traditional LOS and LMS solutions to offer a middleware platform designed to handle complex partnership led transactions. This innovation has been well-received in the market as lending companies increasingly explore partnership-based models to enhance their service offerings.

Another key innovation came from our newly established AI-driven think tank, which operates out of IIT Dharwad. This initiative focuses on developing , AI-enabled tools like Sarathi, designed to optimise field operations for NBFCs. Sarathi's AI-driven interaction models enhance job satisfaction and retention among field staff, while AI-powered insights streamline training, boost productivity, and simplify communication in local languages – critical for rural markets.

Our Main Solutions

1. Perdix

Perdix is a versatile platform enabling the end-to-end lending lifecycle, for financial institutions, across Lead Management, Origination, Management, Reporting, Audit and Client Servicing. Its plug-and-play nature allows financial institutions

23
FINANCIAL
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7
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2. PERDIX LP

Perdix Liquidity Platform (PERDIX LP) is an LOS LMS-agnostic middleware solution that streamlines financial institutions' co-lending operations. By enabling seamless integration with existing LOS LMS solutions, PERDIX LP allows lenders to manage multiple loan schedules, splits, and blended rates across partnerships. The solution also simplifies escrow reconciliation, First Loss Default Guarantee (FLDG) monitoring, and partner-specific business rule enforcement. Since its launch, PERDIX LP has helped financial institutions navigate the complexities of co-lending arrangements, enhancing transparency, efficiency, and compliance.

3. Sarathi

Sarathi represents Dvara Solutions' foray into AI-driven product development. Designed to revolutionise field operations for NBFCs, Sarathi is powered by AI algorithms that enhance field staff performance by offering real-time guidance and decision-making support. Sarathi's interactive training model simplifies onboarding, while AI-driven communication features break language barriers and improve field staff engagement. This product highlights our commitment to leveraging AI to solve real-world challenges lenders face in rural India, helping financial institutions increase operational efficiency and financial inclusion.

Client-Centric Approach

With 23 financial institutions using Perdix, Dvara Solutions' impact is evident in its ability to simplify complex financial processes and enhance customer-centricity across its client base. Financial institutions have reported significant improvements in operational efficiency, with the platform's user-friendly interface and advanced analytics streamlining loan origination and management.

Dvara Solutions' focus on customer-centric design is best illustrated in its commitment to understanding the needs of its users, whether they are lenders, field officers, or borrowers in remote areas. By continuously evolving our product offerings to meet these needs, we remain at the forefront of innovation in the Indian FinTech sector, empowering financial institutions to serve their customers better while fostering financial inclusion nationwide.

The Path Forward

Over the next few years, Dvara Solutions aims to scale its operations by focusing on three core areas: enhancing its platform offerings, scaling its partnership-focused technology solution, and innovating through AI-driven solutions. The company's Centre of AI for Financial Inclusion, IIT Dharwad, will play a pivotal role in this strategy, developing AI tools that can be commercially offered to financial institutions.

ADVOCACY FOR THE UNDERSERVED

Research for systemic change



SUSTAINABLE DEVELOPMENT GOALS

At Dvara Research, our mission and operations align closely with multiple United Nations Sustainable Development Goals (SDGs). Our work directly impacts

SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities) by researching the financial lives of underserved populations and suggesting solutions. Several of our recommendations have been translated into policy initiatives, and have contributed to SDG 5 (Gender Equality) and SDG 9 (Industry, Innovation, and Infrastructure).



At Dvara Research, our mission is simple: To ensure that every low-income household and 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.

Being an independent, nonpartisan, not-for-profit policy research institution based in India, Dvara Research, founded in 2008, has deeply analysed and carefully written about financial inclusion and social protection in India from policy, regulatory, and practitioner perspectives that are anchored to its mission.

We operate entirely on grants, focusing solely on improving the financial wellbeing of our primary stakeholders, the low-income households. This independence ensures that our research remains unbiased and dedicated to our mission of addressing the challenges faced by underserved communities.

Non-Profit and Independence

Dvara Research's commitment to maintaining independence stems from our non-profit model. This allows us to preserve our integrity and focus on producing research that benefits low-income households rather than catering to commercial interests. By forgoing consulting work, we believe we can ensure that our research is not swayed by external pressures, thereby serving underserved populations with transparency and dedication.

Early Research Focus

For the first decade, our research primarily focused on desk-based studies, analysing secondary data sources such as policy documents from the Reserve Bank of India and other regulatory bodies. While we occasionally conducted primary research through field surveys in rural areas, much of our work relied on insights generated from existing data.

Although this approach produced valuable research, it limited our interaction with external stakeholders, including policymakers and financial service providers. Our primary focus during this time was on producing knowledge that could inform policy decisions but had limited direct engagement with the communities we aimed to serve.

Transition to Action Research

Over the past five years, we have undergone a significant transition toward action research. This allows us to directly test and implement solutions in real-world settings, often in collaboration with private sector stakeholders. By engaging more actively with low-income households and financial service providers, we have refined our approaches, tailoring solutions to address the actual challenges faced by these communities when interacting with formal financial systems.

Financial Inclusion Challenges

One of our core focus areas has been identifying and understanding the barriers low-income households encounter when attempting to access formal financial services. Many individuals from these communities are new to the formal financial system and struggle with financial literacy, making



them vulnerable to mis-selling or have difficulty navigating financial products. Our research aims to highlight these obstacles and propose practical solutions that improve financial inclusion, making financial services more accessible and user-friendly for low-income households.

For example, a critical aspect of our action research is focused on improving grievance redressal mechanisms for low-income customers. These mechanisms are often inaccessible, particularly to those unfamiliar with digital tools. We have worked to redesign these systems, collaborating with design firms to create user-friendly mock-ups of grievance redressal platforms, including the UPI system. By testing these models in the field, we ensure they are practical and accessible before advocating for their broader adoption by policymakers and service providers. Our goal is to make it easier for low-income households to resolve issues related to financial services, thereby enhancing their confidence in the formal financial system.

The Verticals of Dvara Research

Our work is organised into four primary verticals: Financial Systems Design, Future of Finance Initiative, Household Finance, and Social Protection Initiative. Our research on Customer Protection Program is what we call an "horizontal" cutting across the four verticals. Each vertical focuses on different aspects of financial inclusion but shares the common goal of improving access to financial services for underserved populations. Across all verticals, we prioritise customer protection, ensuring that the interests of low-income households are at the forefront of our research and advocacy.

Financial Systems Design

This vertical is the oldest within Dvara Research and focuses on simplifying and improving the structure of India's financial system. We analyse the regulatory frameworks that govern financial institutions, such as banks, insurance companies, and NBFCs, to identify gaps and inefficiencies. We aim to propose improvements that enhance the regulatory landscape, making it more conducive to financial inclusion. For instance, when new regulations for micro-finance institutions were introduced, we examined whether these regulations were achieving their intended objectives. We provided feedback to policymakers to ensure that the regulatory frameworks aligned with the needs of underserved communities.

Future of Finance

As technology rapidly transforms the financial services industry, our Future of Finance vertical examines the intersection of finance and technology. We explore issues such as data protection, digital consent for onboarding customers, and the implications of India's digital identity system, Aadhaar. Our research also evaluates the impact of India Stack, a set of digital public goods, on financial inclusion. While these technological innovations offer opportunities to expand access to financial services, they also come with risks, such as exclusion due to digital illiteracy or privacy concerns. Our research seeks to ensure that technology-driven solutions are equitable and protect consumer rights, particularly for low-income households.

Household Finance

The financial lives of low-income households differ significantly from wealthier individuals, often characterised by income volatility, short-term planning horizons, and limited access to financial planning tools like insurance and retirement plans. Our Household Finance vertical focuses on understanding these unique financial behaviours and advocating for the design of financial products that better suit the needs of low-income customers. For example, we have advocated for greater transparency in the disclosures of insurance products, such as endowment policies, which are often mis-sold to low-income households. We believe that simple, well-designed financial products, such as term life insurance, are more appropriate for these communities and can help improve their financial security.

Social Protection Initiative

The Social Protection Initiative focuses on government welfare programs supporting marginalised and underprivileged groups. We analyse the efficacy of these social protection schemes, particularly in the context of digitisation, which has become a key feature of welfare delivery in India. Our research has uncovered significant exclusion rates in these digitised systems, with some beneficiaries being denied access to welfare due to authentication issues or bureaucratic mishandling. In some areas, exclusion rates can be as high as 70%, despite digitisation reducing leakages and wrongful inclusion. We have developed frameworks, such as the "exclusion framework," to help policymakers understand and address these challenges, ensuring that welfare schemes reach their intended beneficiaries.

Advocacy and Outreach

Dvara Research engages in several forms of advocacy to influence policy and regulatory frameworks. Our advocacy efforts can be categorised into four types:

- 1. Unsolicited Advocacy:** Writing letters to regulatory authorities to share our research and policy recommendations, even when not explicitly requested.
- 2. Solicited Feedback:** Responding to public consultations initiated by regulators, offering our expert analysis and suggestions.
- 3. Seeking Direct Audience:** Proactively looking for meetings with regulators and policymakers to discuss our research findings and their implications for financial inclusion.
- 4. Invited Advocacy:** Being invited by policymakers or regulators to contribute research and participate in policy discussions.



In addition to these advocacy efforts, we also disseminate our research through op-eds, LinkedIn posts, and our website, ensuring that our work reaches a wide and diverse audience. Although we may not always receive direct feedback from policymakers, our research is often referenced in regulatory discussions, highlighting its impact on shaping policy.

Our work has gained the admiration and respect of policymakers and regulators. Since its inception, Dvara Research has been a research partner of choice for critical policy-making bodies such as the Reserve Bank of India, the Securities and Exchange Board of India, and the Pension Fund Regulatory and Development Authority.

Future Research Priorities

Looking ahead, we plan to focus on three key areas of research:

- 1. Documentation of the Financial Lives of Low-Income Households:** We aim to document the financial lives of low-income households in rich detail, understanding the nuances across different states, castes, and religious communities. For instance, the financial lives of women in Tamil Nadu are likely very different from those of the women in Rajasthan. By identifying both universal patterns and specific challenges, we hope to create more effective financial products and services tailored to these diverse contexts.
- 2. Exploring the Relationship between Financial Inclusion and Social Protection:** Another critical area of research will explore how financial inclusion and social protection intersect in the lives of low-income households. While financial inclusion is often driven by private sector initiatives and social protection by public sector schemes, both systems serve the same beneficiaries. We seek to understand how these systems can complement each other and ensure that policies are designed with these interactions in mind.
- 3. Financial Customer Protection:** Dvara Research is uniquely positioned to study the state of financial customer protection in India, and to devise solutions that will enhance customer experience and trust. Under our customer protection work, we aim to design, test, and scale solutions for meaningful financial inclusion, i.e., formal finance that is relevant, accessible, affordable, intuitive, and trustworthy.

LEVERAGING TECHNOLOGY FOR SMALL FARMERS' SUCCESS

Empowering farmers with complete access to finance and markets to achieve profitability and climate resilience



SUSTAINABLE DEVELOPMENT GOALS

At Dvara E-Registry, our mission and operations align closely with several United Nations Sustainable Development Goals (SDGs), making a direct impact on

SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities) by providing small and marginal farmers suitable new-age digital solutions and access to financial and value chain markets. Financial inclusion empowers individuals and households to improve their economic situations and build long-term wealth. We also contribute to SDG 5 (Gender Equality) by offering women financial products that allow them to participate actively in economic activities. Our focus on improving the yields of these farmers reflects our commitment to SDG 9 (Industry, Innovation, and Infrastructure), providing modern financial services to underserved sections of the population.



Can smallholder farming be a viable and sustainable business venture in India? In our experience, given the right technology, agri-inputs, actionable insights, and infusion of affordable credit, the answer is an emphatic YES!

Dvara E-Registry (DER) was founded to address several pressing challenges that smallholder farmers face in India, particularly those regarding affordable institutional financing, market access, and acquiring the right agricultural inputs.

Khet Score for Affordable Finance

India has over 140 million farmers of which 86% are smallholder farmers. Smallholder farmers have an average landholding of just 0.7 Ha, lesser than the national average of 1.01 Ha. Almost 70% of these smallholder farmers do not have access to institutional lending. Overall, as per RBI's report, nearly 50% farmers do not have access to Kisan Credit Card (KCC).

The reasons for limited access to institutional lending are many. While most public sector and co-operative banks offer crop loans to farmers, the process is often cumbersome and intimidating for smallholder farmers not conversant with the formal banking system. Additionally, banks often require collateral that the farmer may not be able to provide.

The on-the-ground reach of KCC, a government-funded initiative, is also limited. Again, farmers have to visit bank branches, which is often a daunting task given the distance involved. Additionally, funds made available through such initiatives were often exhausted early in the farming cycle, forcing farmers to revert to informal lending methods.

Most importantly, even if the smallholder farmers are able to navigate through the challenges of distant branch and cumbersome documentation, most of them do not have a credit score as well. As a result these smallholder farmers, with small landholdings are not considered creditworthy in the absence of a credit score. In case of women farmers, such challenges are even more pronounced and intimidating.

Consequently, almost 70% of small holder farmers in India lack access to institutional credit, which leaves them in the clutches of money lenders who charge usurious interest rates – often up to 10% per month.

CASE STUDY 1



Kunja Bihare, a Manipuri farmer, faced challenges with fertiliser shortages and a lack of pesticide knowledge. Encouraged by Dvara, Kunja and other farmers formed an FPO, gaining access to soil testing, efficient fertilisers, and agricultural loans. With Dvara's support, Kunja has turned challenges into opportunities for himself and his community.

At Dvara E-Registry, we have developed an innovative solution that combines technology with doorstep access to collateral-free finance for the smallholder farmers. Dvara E-Registry has created Khet Score, an analytical tool that is used to assess the creditworthiness of the farmers and work with financial institutions in a Business Correspondent model to offer institutional lending to farmers at their doorstep.

First the fields of the farmers who are interested in availing credit are geo-fenced. Then, Khet Score is generated using technologies like remote sensing, AI, and machine learning by analysing various parameters of a farmer's performance over three years, including area under cultivation, number of crops taken, crop health, crop moisture, soil moisture, weather conditions, and land productivity. Overall, 11 parameters are analysed covering 200 data points. The Khet Score thus generated acts as an alternate to credit score and helps assess the farmer's creditworthiness, allowing financial institutions to lend to farmers who might otherwise be excluded from the formal credit system. The Khet Score is a reliable alternative to banks' typical credit scores, enabling lending decisions based on field-level data.



We complement this up with a doorstep digital financing model to further ease the financing process. In this system, all activities – document collection, fund disbursement, and loan repayment – are managed directly at the farmer's location, thus mitigating the challenges posed by remote geographical locations or a farmer's lack of familiarity with banking processes. Furthermore, Dvara E-Registry has designed its loan products with flexibility, offering tenures between six and 21 months.

Inclusion of Women

Khet Score-enabled digital process of lending to farmers at the doorstep is specifically very beneficial to women farmers, since it breaks the multiple barriers of access to lending. Women farmers have emerged as significant participants in Dvara E-Registry's lending programs. Recognising the independence it affords them, we ensure that women are either primary borrowers or co-borrowers in all loans. In fact, 36% of Dvara E-Registry's primary borrowers are women. This focus on women in agriculture improves repayment rates and contributes to women's economic empowerment in rural communities, giving them greater control over financial decisions.



Working with Farmer Producer Organisations (FPOs) to Improve Market Access

Smallholder farmers in India face a strange and expensive proposition when it comes to market access. When they sell their produce, it is at wholesale prices, while when they buy agri-inputs, it is at retail prices. This means they get a rough deal both ways. To support smallholder farmers in better market access, there are various government and non-government organisations that are promoting formation of Farmer Producer Organisations (FPOs). FPOs are formed by farmers as shareholders and are intended to reduce cost of agri-inputs and increase access to markets to sell produce. However, in the absence of business analytics related to business potential and opportunities of agri-inputs and agri-produce, many FPOs struggle to provide a good deal to their shareholders.

At Dvara E-Registry, we tackle this problem of FPOs by using Doordrishti digital platform that uses farm-level analytics to

generate actionable insights for the FPOs to show potential business opportunities in agri-inputs and agri-produce. Aggregation model of FPOs allows small and marginal farmers to band together, creating larger produce volumes and enabling bulk purchasing of inputs at lower prices. It is the actionable insights from Doordrishti platform that shares quantitative information inventory and provides financial management for both inputs and outputs. On one hand this helps FPOs in better negotiation with the market players and on the other, it increases efficiency of working with the farmers to meet their demand and plan logistics for market connects. This shift allows farmers to sell their produce at retail prices and purchase inputs at wholesale rates, flipping the traditional dynamic.

Further, for sustainability of FPOs, at Dvara E-Registry, we employ a comprehensive approach to help FPOs effectively connect with markets, improving their understanding of the agricultural value chain and offering all-round solutions to the shareholders to increase their lifetime value from the FPOs.

Dvara E-Registry's model of working with FPOs includes multiple interventions with the aim to become a one-stop solution to farmers' need. Hence, following interventions are introduced through the FPOs.

Doordrishti

The Doordrishti platform is a critical digital tool developed by Dvara E-Registry to support FPOs and individual farmers across India. The platform has three interfaces: the FPO dashboard, the field representative app, and the farmer app, each designed to streamline data management, market access, and financing for farmers.

The FPO dashboard serves as the command centre, providing real-time insights into the activities of registered farmers, such as crop details, landholding data, and business opportunities. This empowers FPOs to communicate effectively with the farmers and aggregate produce, enabling them to negotiate better prices in the market. The dashboard also offers features like weather forecasts,

commodity price lists, and a virtual store where products can be listed for sale.

On the ground, field representatives play a critical role in connecting farmers to these services. Using the field representative app, they digitise landholdings, collect necessary documentation, and track repayments, ensuring that all relevant data is captured accurately for financing and value-chain services.

The farmer app provides farmers with essential updates, including customised crop advisories, weather forecasts, and price alerts, helping them make informed decisions about their agricultural practices and market activities.

1. Doordrishti digital platform, a comprehensive platform with interfaces for FPO, field representation and farmers. The FPO dashboard for the FPO has digitised information about the shareholder farmers, generated insights in the form of business opportunities in agri-inputs and agri-produce with aggregated as well as granular information and virtual shop to communicate with the member farmers about market connects accessible through the FPO. Krishak Sathi mobile application for the field representative is to digitise the farmer- and farm-level data such as farmer KYV, geo-fencing farmer fields, and crop information. In addition, field representatives also have information about backward and forward market connections from FPOs that they can use for business development of FPOs. Through Krishak mobile application, farmers receive multiple benefits such as customised crop advisories, weather forecasts, market spot and futures prices information, nearby warehouse information and virtual shop of FPO for access to products and services offered by FPO, and trade and quality parameters of agri-produce that the FPO intends to buy. Farmers can place their intent to buy or sell through the virtual shop for both listed and unlisted products. This comprehensive platform not only shares insights for FPOs to increase business, but also share much needed information on advisories, weather, and products and services of FPOs with the farmers for their benefits.
2. Climate smart practices through customised crop advisories to build resilience amongst farmers towards climate change. The advisories are customised based on date of sowing of crop, duration of crop, block-level weather forecasts and soil type. This helps farmers to plan cultivation practices accordingly.
3. Financial linkages to the member farmers of the FPOs to empower them with access to Khet Score-based institutional lending. This enables farmers to buy inputs from FPOs by paying in cash, which otherwise would not have been possible since farmers mostly rely on credit facilities from the dealers and FPOs sell products and services on credit for lack of funds.
4. Backward market linkages for access to quality agricultural products in time and at better prices. DER has partnered with over 100 entities to offer agricultural inputs and specifically focus on climate-friendly inputs such as biological products, and climate resilient seeds.
5. Forward market linkages for sale of agri-produce. While educating FPOs and farmers on trade and quality parameters, DER provides access to markets through processors, traders and buyers of agri-produce.
6. Agri-allied activities such as dairy, poultry and fisheries based on potential in the area. One of the features of Doordrishti platform is to capture the agri-allied activities of the farmers. Based on the potential derived out of farmers' interest in allied activities, DER introduces the necessary interventions in the relevant fields.
7. Introduction of new technologies that can reduce the cost

CASE STUDY 2



Umesh, a farmer, once faced harassment from moneylenders and severe financial stress. Through the Dvara-supported Lok Unnati Krish-E-FPC and the Doordrishti app, he now knows accurate pricing for his produce and has access to quality seeds, fertilisers, and weather updates. Joining the FPC has empowered him to stabilise his agricultural activities.

of cultivation, improve efficiency and reduce wastages. Demonstrations and training are planned for capacity building of both farmers and FPOs.

While there are multiple interventions planned with the FPOs, we also understand that the FPOs have limited bandwidth and hence we use a phased approach that prioritises learning and gradual independence, ensuring that the FPOs can eventually manage the entire market linkage process themselves. Here is how we work:

Initial Market Exposure

When an FPO is new, we emphasise building foundational knowledge. At this stage, the FPO's primary role is to serve as an intermediary between farmers and Dvara E-Registry as the buyer.

The aim of this phase is to familiarise FPOs with the logistics of commodity transactions, such as transportation, quality assessment, and deduction rates based on quality.

Direct Buying and Selling

Once the FPOs have gained confidence and understand the market dynamics, they are encouraged to buy produce directly from farmers and sell it to buyers under their name. This shift ensures that the transaction volume is recorded in the FPO's financial books, boosting their revenue and allowing them to negotiate better deals in the future. Through this process, FPOs also establish themselves as credible market players.

Value Addition - A Selective Approach

While bulk commodity trading poses challenges, we encourage FPOs to consider niche value-addition opportunities. Products like pickles, papads, and soya-based items are more suitable for small-scale processing because they offer higher margins and have longer shelf lives. There is good demand of traditional savouries especially during events such as Melas. FPOs also capitalise on the nostalgia factor of such products by listing these products on e-commerce platforms such as ONDC.

Expanding into Seed Multiplication

At Dvara E-Registry, we have also ventured seed multiplication where FPOs can handle the entire value chain. In this program, FPOs procure breeder or foundation seeds, which are then distributed to farmers for contract farming. Once harvested, the seeds are cleaned, graded, and certified before being sold to other farmers. Eleven FPOs have already successfully adopted this model, finding it more profitable than standard commodity trading. Through seed multiplication programs, DER intends to promote both climate resilient seeds, increase seed replacement rates and promote climate smart practices. Since farmers under seed multiplication program are mandated to follow certain practices, nearby farmers also learn from their fellow farmers resulting in adaptation of better practices and yield improvements.

Towards Climate Resilient Agriculture

Recognising the growing importance of sustainable practices in agriculture, we at Dvara E-Registry also introduced climate-smart farming solutions. By offering customised crop advisories based on local weather conditions, soil health, and specific crop requirements, we aim to increase productivity while reducing environmental impact. One such initiative is the Direct Seeded Rice (DSR) method, which reduces greenhouse gas emissions and conserves water, allowing for more sustainable rice production. DSR saves around 30% of irrigation water as compared to transplanted rice cultivation and reduces emissions of 2-4 MT CO2 equivalent of GHGs per Ha. To incentivise such farmers, we onboard these farmers on Carbon Credit Program. Till now we have onboarded over 2,700 farmers with 6,500 Ha on carbon credit programs.

Insurance Services for Farmers

Recognising farmers' vulnerabilities, Dvara E-Registry also offers a suite of insurance products to mitigate personal and agricultural risks. The health insurance program is designed specifically for farmers, offering affordable premiums. The coverage focuses on two key areas: accidents, which are common among farmers due to the nature of their work, and hospitalisation, which can drain a farmer's savings. The insurance provides lump sum payouts in case of accidents and a daily allowance for up to 30 days of hospitalisation, regardless of illness or injury.

In addition to health insurance, we also offer weather insurance, particularly for farmers involved in seed multiplication programs. Weather insurance covers risks such as unseasonal temperature spikes or insufficient rainfall, which can severely impact crop yields. By incorporating weather insurance premiums into the cost of seeds, we ensure that farmers are protected from climate-related risks throughout the growing season.

With the use of technology in creating a Khet Score, the user-friendly Doordrishti platform, diverse financial products, and the inclusion of women farmers, we at Dvara E-Registry are creating an ecosystem where smallholder Indian farming is becoming a sustainable and profitable business venture.



1 lakh+
FARMERS

200+
FPOS REACHED

2,500+
VILLAGES

12
STATES

FINTECH FOR THE DAIRY INDUSTRY

Dairy fintech providing solutions to financial institutions and dairy farmers by leveraging new-age technologies



SUSTAINABLE DEVELOPMENT GOALS

At Dvara E-Dairy, our mission and operations align closely with several United Nations Sustainable Development Goals (SDGs), enabling us to make a tangible impact on SDG 10 (Reduced Inequalities) by providing small and marginal dairy farmers suitable new-age digital solutions and access to financial and value chain markets. Financial inclusion empowers individuals and households to improve their economic situations and build long-term wealth. We also contribute to SDG 5 (Gender Equality) by offering financial products to women that allow them to participate actively in economic activities. Our focus on improving the yields of these dairy farmers reflects our commitment to SDG 9 (Industry, Innovation, and Infrastructure), providing modern financial services to underserved sections of the population.



With 308 million cattle, India is home to approximately a third of the global cattle population. India is also the world's largest producer of dairy products, with an industry size of about USD 130 billion, forecasted to reach USD 310 billion by 2027.

The industry is marked by a diversity of enterprises, ranging in size from massive co-operative societies, multi-national corporations, and large private sector companies to small and marginal dairy farmers. The industry is also a focus area for government initiatives aimed at boosting employment, productivity, and profitability.

The Challenges of Small and Marginal Dairy Farming and the Need for Financial Inclusion

India ranks #1 in cattle population and milk production. There are 100 million dairy farmers, of which more than 95% are small and marginal dairy farmers. Almost 80 million rural households meet their working capital requirements from dairy. More than 65% of the dairy operations have women involvement and they play an important role in dairy management and meeting working capital requirements of the household. The current penetration of cattle loans is less than 10%.

Financial institutions lack authentic, reliable, scalable tools to assess cattle. While the institutions are unable to scale in the underpenetrated sectors, small dairy farmers face challenges to increase herd size, protect their income generating asset (cattle) leading to loss of livelihood during eventualities.

The solutions from Dvara E-Dairy helps small dairy farmers to get access to cattle loan, cattle insurance and scientific management of dairy. Women get empowered when they get access to financial services, scientific dairy management and able to decide on dairy management and use of funds derived from dairy.

While the sector contributes significantly to rural household incomes, it is often fraught with challenges. Dairy farmers, especially small-scale farmers, usually need more access to financing, which inhibits their ability to invest in essential assets and adopt regenerative business practices. This challenge with the financial inclusion of these farmers is best explained by an analogy.

For example, if a person were to start a taxi service or a goods delivery service, she could approach a bank or NBFC and get a vehicle loan. Further, the car or van would be insured as each vehicle has a unique identity—its engine and chassis number. The performance of the vehicle is authenticated by the manufacturer who provides peace of mind through warranty, the vehicle dealer also facilitates insurance. In nutshell, all parties in the ecosystem have data symmetry empowering them to take informed decisions.

Since such a unique identity didn't exist for cattle, financial institutions were reluctant to provide cattle loans or cattle

CASE STUDY 1



Jagadeesh, uses the income from his dairy to supplement what he earns from farming. He recalls a time when his cows' milk was his family's lifeline during a drought. He has signed up with Dvara E-Dairy. He uses its Surabhi score, to monitor the health of his cattle. The Surabhi app has made it easier for him to access veterinary care, thereby significantly improving his dairy income.

insurance. Financial institutions didn't have authentic and reliable tools to assess cattle, estimate income from dairy and how well the cattle are managed. Loans for buying cattle, therefore, were offered as personal loans to the dairy farmer. These loans, often provided by public sector financial institutions under the government's 'priority sector' lending policies had to face losses due to fraud or other leakages at the ground-level. There is larger dependency on the paravets to provide health status of the cattle and insurability of the cattle. This leads to data asymmetry, collusion among parties leading to a high loss ratio. Insurers are not keen to insure the cattle as this segment is not a priority for the insurance companies.

Without adequate finance, dairy farms' growth, profitability, and sustainability are severely constrained. These challenges underscore the need for financial inclusion in the dairy farming industry. At Dvara E-Dairy, our mission is to provide solutions leveraging technologies to address these challenges, and ensure that farmers get the best returns on their bovine by providing them access to financial services and value-chain markets.

Digitised Cattle for Digital India

Through digitised cattle, we provide following solutions to financial institutions to underwrite cattle accurately at-scale and offer cattle loans and cattle insurance.

- Verifiable biometrics based on muzzle identification
- Health status of the cattle based on Body Condition Score and other parameters
- Estimates of the potential milk yield

CASE STUDY 2



Jaymani's husband passed away a few years ago and her cattle are her sole source of income. Her life revolves around her cows, whom she lovingly cleans, feeds and milks twice a day. She is very grateful for Dvara E-Dairy's interventions. The unique biometric identity of her cattle has meant that she has been able to get loan to buy cows and also insure them. With the help of Dvara E-Dairy's field staff and the Surabhi app, she is able to monitor the health of her cows and ensure their proper feeding.

The fact is that, like humans can be uniquely identified by fingerprints or retina scans, or tigers by their stripes, cattle have a similar unique biometric identification—their muzzles. The muzzles of no two cows are similar. This insight is not unique or new. A few hundred research papers have been written about this phenomenon in veterinary literature. However, we at Dvara E-Dairy were the first company in India, to build a patent-pending, mobile-based platform for digitally identifying cattle using their muzzles. This unique digital identification system has allowed us to create an ecosystem that can solve the problem of financial inclusion for small and marginal dairy farmers.

In the world of dairy farming, the significance of cattle identification cannot be emphasised enough. It plays a vital role in managing production and inventory, improving decision-making abilities, and ultimately determining a dairy farm's success. Such unique identification is also critical to financial institutions, which provide cattle loans and cattle insurance.

Surabhi App

As a dairy fintech, our innovation continued beyond building the mobile-based unique identification system for cattle. We built an ecosystem, including a specialised app for dairy farmers—our Surabhi app—that provides them with a range of services.

The Surabhi app combines the expertise of our panel of veterinary doctors and AI to help us build a Surabhi score for

the farmer. The way this process works is as follows:

KYC: In our ecosystem, KYC stands for Know Your Customer and Know Your Cattle. The Surabhi app is capable of handling both.

Estimating Cattle Health and Yield: The Surabhi app can also evaluate the cattle's health using over 50 parameters. This is done by using several photographs of the animal and its udders. A good veterinarian would be in a position to make an estimate of a cattle head's health just by looking at the cattle. Our app uses this same expertise overlaid with our AI algorithm to make an estimate of the cattle's health and milk yield.

Estimating Cashflows: Once the cattle's health and yield are determined, the app is equipped to factor in the approximate localised milk pricing and arrive at a cash flow statement, which includes both income and estimated expenses. Based on this, we can predict the surplus and the overall income based on the entire herd. This is what we at Dvara E-Dairy call the Surabhi score. It serves as an indicator for financial institutions to underwrite cattle loans and provide other financial services.

Additional Services: The Surabhi app's usefulness to the dairy farmer goes far beyond cash flow estimation. Farmers can use this app to check the health status of the cattle, which is a vital tool when buying or selling cattle. The app also aids the farmer in better feed management, thereby not only ensuring better health of the animal but also reducing feeding costs.

The app also helps maintain an accurate count of the cattle and track their age. This is particularly useful when determining the number of replacement heifers needed to maintain a well-aged herd. Further, having a record of each cow's history of calves enables farmers to make objective decisions when it comes to culling or selling cattle. Instead of relying on memory, farmers can refer to actual records and performance details.

In addition, the app has an in-built AI chatbot that allows the farmer to connect with a veterinarian using WhatsApp for consultations. Combining these features means that the Surabhi app – our Dairy Intelligence Platform (DIP) – has emerged as the most trusted platform for the dairy economy.

Using this DIP, institutions can underwrite cattle loans and provide cattle insurance without worrying about fraud or NPAs. This removes the biggest hurdle to the financial inclusion of small and marginal dairy farmers.

Furthermore, since the DIP also helps farmers manage their dairies scientifically, it boosts productivity and sustainability.

Do-It-Yourself (DIY) for dairy farmers to get access to cattle insurance at their doorstep is first of its kind in India.

Road Ahead

At Dvara E-Dairy, we have partnered with several prestigious institutions, including Jana Small Finance Bank, Milky Mist and Iffco-Tokio General Insurance, Samasta Microfinance, Jersey Creamline Dairy Products, Bajaj Allianz, to provide diverse services to small and marginal dairy farmers.

We are also expanding our reach into Africa, South Africa for example, faces cattle thefts estimated at about USD 1 billion annually. Our technology stack, with its unique identification of cattle, could play a crucial role in addressing this challenge and reducing losses in the region.

40,000
FARMERS

₹61 cr
LOANS DISBURSED

1.70 lakh
CATTLE INSURED

EMPOWERING GIG WORKERS THROUGH FINANCIAL INCLUSION

Dvara Money is offering finely tuned financial services to millions of an often-overlooked demographic



SUSTAINABLE DEVELOPMENT GOALS

At Dvara Money, our mission and operations align closely with several United Nations Sustainable Development Goals (SDGs), enabling us to make a tangible impact on SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities) by providing financial services to underserved gig workers populations. Financial inclusion empowers individuals and households to improve their economic situations and build long-term wealth. We also contribute to SDG 5 (Gender Equality) by offering financial products to women that allow them to actively participate in economic activities. Our focus on the Spark Dost network reflects our commitment to SDG 9 (Industry, Innovation, and Infrastructure), providing modern financial services to underserved sections of the population.



India is estimated to have 7.7 million gig workers performing critical roles for various platforms, including express food and grocery deliveries, travel (cabs, autos, and bikes), beauty and make-up services, and household maintenance work. This number is expected to increase to about 24 million by 2030.

Platforms leverage technology to serve as intermediaries in a multi-sided market that includes customers demanding specific products and services, vendors supplying those products and services, and gig workers supplying their labour to deliver these products and services from the vendors to the customers. Platforms depend on positive network externalities emerging from this multi-sided market to stay economically viable and eventually become profitable. This requires them to onboard a critical mass of customers, vendors, and gig workers. As platforms surpass this critical mass, workers, vendors, and customers increasingly become dependent on these platforms. With no alternative but to depend on platforms for access to the market, they become price acceptors.

The very nature of platform-based gig work means that these workers don't have stability in their daily earnings. This is because of a lack of visibility over variations in customer demand, worker availability, and algorithmic task assignment. This lack of stability impacts their ability to plan their financial lives, save and invest for the future, and/or take care of emergencies.

Dvara Money was founded to provide comprehensive financial services to this often-overlooked demographic. These individuals have traditionally had limited access to formal banking systems and investment opportunities. Recognising this gap, we at Dvara Money offer a tech-enabled platform that delivers financial products and services tailored to the needs of these workers. With a focus on convenience and accessibility, Dvara Money aims to empower users with banking solutions that fit their unique financial ecosystems.

While all gig workers have bank accounts – the platforms only pay them via the banking channels – their inability to plan impacts their ability to save and invest. At Dvara Money, our mission is to offer wealth management services and distribute financial products. We do this by leveraging technology and deep customer behavioural insights that help us provide customers with nudges to improve their financial wellness.

Spark Money: Tailored Financial Solutions for Gig Workers

'Spark Money', a mobile application developed in-house integrates various financial services such as UPI-enabled transactions, digital gold, insurance products, and income tax filing. By offering these services on a single platform, Spark Money provides a convenient solution that meets all of a customer's basic financial needs, eliminating the need to navigate multiple systems or platforms.

CASE STUDY 1



Satish Kumar, from a middle-class family, faced adversity after losing his father at age 10. During the pandemic he started working as a delivery person for a quick commerce company. He says that inclusive of his salary and incentives, his take-home income is about ₹ 30,000. At his quick commerce company's depot, he discovered the Dvara Spark Account. The Spark Money app has enabled him to invest and manage his finances, helping him save small amounts in gold. Another benefit has been that he is able to file income tax returns and thereby claim as refund the tax that was deducted at source by his employer. He uses the Spark Money app for all his transactions, and it is helping him build a foundation for future financial stability.

One of Dvara Money's core offerings is its focus on creating financial products that are not only accessible but also well-suited to the financial realities of gig and blue-collar workers. This segment includes workers from platforms like e-commerce or food delivery companies, as well as security personnel and housekeeping staff. Many of these individuals struggle with accessing formal banking services due to stringent account-opening processes and requirements for local address proofs and introducers, which are often difficult for them to provide.

Spark Dost Centres

In keeping with Dvara's philosophy of offering doorstep service, we have opened a network of Spark Dost Centres across key locations – typically in places where gig workers congregate. Such centres are staffed by Spark Dost (friend) officers who are specially trained to understand the needs of the local region and offer customers suitable financial products in a simple, secure, and transparent process.

Each Spark Dost Centre works as a grassroots-driven focal point in our journey towards offering a digital community through an assisted banking platform that this urban underserved section of the population experiences as their own and is treated with respect and dignity. This complements our efforts to push the frontiers of technology and product innovation.

Through an assisted banking model, each Spark Dost Centre can seamlessly open a zero-balance Spark Savings Account, offer other wealth management products like Digital Gold Savings, Insurance, Loans and Income Tax filing for customers in minutes. Customers can also instantly avail themselves of a

lifetime free debit card? that they can use for both online and offline transactions.

Each of these product offerings is carefully tailored to the needs of the target population.

For example, while some platforms offer health insurance to their workers through group schemes, the coverage is often inadequate, and a health emergency could push them into poverty. Additional coverage is, hence, a welcome protection. Research has shown that because of the inherent instability of their earnings, gig workers need to take loans, often at high interest rates. Our affordable credit offerings provide welcome relief.

Digital Gold is offered as an easily understood savings and investment product. The filing of income tax returns not only brings them into the financial mainstream but also plays another critical income-enhancing role. When paying their workers, all platforms must make Tax Deductions at Source (TDS). Since the gig workers' incomes are generally in the zero-tax brackets, they should be able to get a refund of this TDS. This can only happen if they file their income tax returns. The average income tax refund ranges between ₹4,000 and ₹5,000, which is a significant amount from a gig worker's point of view.



Future Outlook

Dvara Money has forged strategic partnerships with several organisations including banks, NBFCs, insurance aggregators, and gold safe houses to offer a diverse suite of financial products to the customers.

Currently we serve 1.25 lakh customers and aim to scale this up significantly. One way to do this is partnering with other smart financial product manufacturers. Our research has shown that mainstream financial institutions often offer gig workers products based on what's available rather than what they need.

For example, a partnership with a garage network to provide cab and auto drivers, as well as two-wheeler-borne delivery partners offering discounts for vehicle maintenance, would likely resonate more with this audience than a free ATM card.

The gig worker segment is vast and continues to expand, presenting Dvara Money with a tremendous opportunity for growth.

DIGITAL GOLD AS A **LONG-TERM SAVINGS**

INSTRUMENT

Dvara SmartGold is leveraging the average Indian's fascination with gold to create long-term savings



SUSTAINABLE DEVELOPMENT GOALS

At Dvara SmartGold, our mission and operations align closely with several United Nations Sustainable Development Goals (SDGs), enabling us to make a

tangible impact on SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities) by providing micro-savings opportunities to underserved populations. Financial inclusion empowers individuals and households to improve their economic situations and build long-term wealth. We also contribute to SDG 5 (Gender Equality) by offering financial products to women that allow them to participate actively in economic activities. Our focus on the digital gold-based savings reflects our commitment to SDG 9 (Industry, Innovation, and Infrastructure), providing modern financial services to underserved sections of the population.



CASE STUDY 1



Vijaya, an agricultural laborer from Karnataka, supports her family through her income and a small landholding. During the pandemic, her husband lost his job, adding to the financial stress. Through Dvara SmartGold, Vijaya saves small amounts in gold, building a safety net for future emergencies. She values gold savings for their long-term benefits, particularly in agricultural expenditures.

At Dvara SmartGold, we have merged the traditional appeal of gold with the convenience and security of digital technology to create a micro-savings opportunity that is accessible to all vulnerable sections of society.

By offering digital gold as a savings and investment option, Dvara SmartGold provides individuals – especially those from lower-income groups – with a familiar yet modern method of accumulating wealth.

The Appeal of Gold Among Lower-Income Groups

Gold has always held a special place in the hearts of Indian households, particularly in rural and lower-income segments. Unlike mutual funds or stock markets, which are often perceived as complex and inaccessible, gold is a tangible and an emotionally connected asset. For many individuals, particularly women, gold represents security and savings that are both deeply understood and trusted. This is why digital gold has become such an appealing product.

Why Digital Gold?

Gold has always been an asset class used by the poor to save for a rainy day. There are, in fact, several days in the Indian lunar calendar where families are encouraged to buy gold. Customers typically tend to do this by purchasing small pieces of gold jewellery. While this offers the benefit of possessing a tangible asset, it often comes at the cost of high making charges, ranging from 15% to 20%. For instance, when a person buys small gold ornaments and later wants to convert them into larger pieces, such as for a wedding, they must pay for making charges again, leading to a significant loss in the long run.

Digital gold offers a cost-effective alternative by eliminating making charges and recurring costs. Customers can



CASE STUDY 2



Kasthuri from Tamil Nadu manages a tailoring unit and cares for her daughter while her husband works overseas. Financial challenges during the pandemic highlighted the need for savings. With Dvara SmartGold's Micro-Savings plan, Kasthuri began saving for a secure future. She is committed to building her savings, ensuring financial stability for her family.

accumulate pure gold over time, without paying for impurities or stone weights, as seen in traditional jewellery. This allows them to retain the full value of their gold, even during exchanges. Digital gold is securely stored online, eliminating the risk of physical loss or theft.

Additionally, digital gold supports fractional investments, enabling customers to start with as little as ₹1. Unlike physical gold, where larger purchases are required, you can buy small portions of digital gold, allowing for gradual accumulation over time.

Gold as a Tool for Long-term Savings

On our Dvara SmartGold platform, customers can save for various goals, such as marriage, education, purchases of home, vehicle, agricultural land, and even cattle. These categories reflect the typical needs and aspirations of people from different socio-economic backgrounds, particularly in rural areas.

Loan and Credit Options

One of the remarkable aspects of our platform is its flexibility in providing loan options. Customers not only invest in digital gold but can also take advantage of what is termed a 'smart loan,' where they can borrow against their digital gold. The platform is in the process of offering a secured credit card backed by the gold the customers have already purchased, which adds another layer of financial empowerment.

This feature ensures that customers can leverage their gold investments without selling their holdings, giving them greater financial liquidity in times of need. It's an attractive proposition, especially for those who are looking for easy, low-risk ways to secure funds for personal or business expenses.

Since we launched the SmartGold app in 2019, we have signed up 1.5 lakh customers and have about 120 kg of customer gold saved on our platform at any given time, showcasing the viability of the idea and its utility to customers.

1.5 lakh+

SMARTGOLD CUSTOMERS

TOWARDS BETTER HEALTH AND FINANCIAL OUTCOMES

Dvara Health Finance is helping people avoid severe financial stress because of health problems



SUSTAINABLE DEVELOPMENT GOALS

At Dvara Health Finance, our mission and operations align closely with United Nations Sustainable Development Goals (SDGs). SDG 3 talks about ensuring

healthy lives and promoting wellbeing for all ages. SDG target 3.4 is to reduce premature mortality from non-communicable diseases by one-third through prevention and treatment and promote mental health and well-being by 2030. The chief indicator for this is the mortality rate attributed to cardiovascular disease, cancer, diabetes, or chronic respiratory disease. SDG target 3.8 is to achieve universal health coverage, including financial health protection. One indicator for this target is the proportion of the population with large household expenditures on health as a share of total household expenditures or income.



Every year, approximately 10% of Indians fall into poverty because of a hospitalisation event. Can this number of people suffering severe financial stress because of health shocks be reduced? Can the spending on healthcare translate into better health and financial outcomes? That is the mission that we at Dvara Health Finance (DHF) have set for ourselves.

The focus is currently on tackling two ailments that plague India – hypertension and Type 2 Diabetes. According to the National Family Health Survey, in India, 24% of men and 21% of women suffer from hypertension. Over 10.1 crore people have diabetes.

DHF is a member of Dvara Venture Studio's cohort three of investee companies, and it is also the youngest. Presently, we are rolling out a pilot project in the Satara district of Maharashtra. As with all of Dvara's investee companies, the model combines technology, doorstep delivery, partnerships, and expert consultation into one innovative offering.

Healthcare in India follows a 'Fee-for-Service' model. If a patient visits a doctor, she has to pay, regardless of whether she finds relief. At DHF, we are trying to transition this to a 'Value-based Care' model where the focus is squarely on the patient's health outcomes. That is the basis of our core offering, NEEM.

NEEM

The biggest challenge in managing hypertension and diabetes is that these tend to be non-symptomatic conditions for most people. Hence, care-seeking often gets postponed until a critical condition has manifested. Informal sector customers are often 'time-poor' and therefore delivery models that involve travel and waiting times simply do not work. This is why it is important for us to go where the customer is.

We, at DHF, tackle this by offering NEEM, our affordable subscription-based package that combines a health team (health worker + digital health platform), affordable medication and financial solutions.

Trained health workers visit people at home and explain the costs and benefits of the NEEM offering. The health worker does a preliminary screening and uploads the values to the NEEM digital health platform. Depending on the specific values and health status of the individual, a care management plan is devised that is then executed by the health worker who coordinates closely with the doctors on the platform.

The Role of Health Workers

At DHF we currently employ a team of 25 Community Health Workers (CHW), each responsible for a cohort of ~50-75 customers. The target is to achieve 250 customers per CHW. The goal is to keep customers out of hospital and cared for at their home. This is achieved through door-step monitoring, coordination of care with doctors as needed and ensuring adherence to suitable medication. On average, each health worker conducts about 100 patient visits per month, contributing significantly to the health outcomes of their communities.

The health workers are trained to monitor chronic conditions, such as taking blood pressure readings, understanding patient medical history and providing medication counselling and patient support. They also act as a vital link between patients

CASE STUDY 1



Baban Sakharam Jadhav, 74, is a resident of Diwadi village in Satara district. He retired after serving in the Indian army for over 30 years. Living a more sedentary life post-retirement than during his service days, Baban put on weight. A few years ago, he suddenly felt dizzy. When he consulted a doctor, he was diagnosed with hypertension and diabetes. Since then, Baban visited several doctors in a bid to control his blood pressure and sugar levels, but to no avail.

Then, two health workers from Dvara Health Finance visited his home and explained the benefits of the Neem Package. Jadhav readily enrolled and now finds his sugar levels are coming under control.

and more specialised healthcare services when needed, referring patients to hospitals or doctors for advanced care.

Partnerships

DHF has embraced a collaborative approach by forging partnerships with various companies working in the healthcare sector or rural finance. Our collaboration with Zeno Health ensures enrolled patients can access affordable medicines.

We are also working with a range of innovative diagnostic solution providers to bridge the last-mile access challenge for them.

Another partnership with Physica allows health workers to help patients manage chronic pain. The workers assess patients for conditions like frozen shoulder or back pain while Physica's app guides them through specific exercises. Although the health workers facilitate these sessions, they are not required to become physiotherapists themselves, as the core diagnostic and treatment expertise comes from the digital platform and its specialists.

Future Outlook

At DHF, our ambition is to transition its subscription-based service into a model that resembles managed care. Managed care allows patients to pay a fixed subscription fee that covers a wide range of healthcare services, including hospitalisation, thus offering more comprehensive financial protection. By proving that this model is both financially viable and capable of delivering high-quality healthcare outcomes, DHF can replicate its success in other districts.

The immediate target is to reach 10,000 paying members by end-2025. This will enable us to establish a proof of concept demonstrating meaningful health outcomes and a sustainable financial model. We are building the technology back-ends that support replication of the model to more districts across the country. DHF would also be looking at B2B partners - like Sarvagram, and others for partner-led growth. In 24 months, NEEM subscriber base is targeted to reach 1 lakh customers.





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