BCtA Impact Measurement Services (BIMS) Case Study

Mahindra Rural Housing Finance

This publication is part of a series of case studies on the *BCtA Impact Measurement Services* (BIMS), a Business Call to Action (BCtA) initiative, demonstrating how inclusive businesses can measure and apply social impact data.

Twenty one of BCtA's members are BIMS participants. BIMS provides them technical expertise and technology to design and implement survey-based data collection for assessing their operational and social performance.

BIMS is implemented by BCtA with support from our implementing providers, **Arthify** and **Echo Mobile**.

The photo was taken during the BIMS field training.

1. Introduction

This case study describes Mahindra Rural Housing Finance Limited's (Mahindra) experience with social impact measurement[1] through BCtA Impact Measurement Services (BIMS). The case study begins by analysing Mahindra's core business model and social mission, then assesses Mahindra's business activities and its potential contribution to social outcomes. It also details the "BIMS process" that Mahindra engaged in to develop a social impact measurement framework and integrate regular social impact data collection into its operations. The document concludes by highlighting the lessons learned by Mahindra through this experience that can benefit the larger inclusive business community.

> **Guiding questions for measuring impact**
>
> - Why should businesses measure social impact?
> - How should they measure it?
> - What kind of data should they collect?
> - What should they do with this data, and how is it useful?
> - How can they contribute to global priorities and commitments such as the Sustainable Development Goals (SDGs)?[2]
>
> Inclusive businesses[3] across the world face these fundamental questions – whether they are multinational corporations, national conglomerates, small or medium-sized enterprises.
>
> The BCtA Impact Measurement Services (BIMS) works with select BCtA member companies to answer these important questions.

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1   In this case study, 'social impact measurement' refers broadly to the measurement of social, economic and environmental performance of inclusive business.

2   Adopted in September 2015 by all United Nations member states, the SDGs are a set of 17 global goals and 169 targets related to key development issues facing society today. Countries will aim to achieve them by 2030.

3   Inclusive businesses are commercially viable business ventures that engage people living at the base of the economic pyramid as consumers, producers, suppliers and distributors of goods and services.

2. About Mahindra Rural Housing Finance

Established in 2007, Mahindra provides home loans to low-income families in rural India. It is a subsidiary of Mahindra and Mahindra Financial Services Limited, a farm equipment and vehicles financing firm that has been serving, for over 15 years, customers who lack access to formal banking services. While working with its customers, Mahindra identified a market need for home loans in rural areas. Most of its customers are ineligible to take loans from regular banks since they lack proper documentation and proof of income, and face other regulatory hurdles. Microfinance does not cater to the home loan market, and informal financing from money lenders in rural areas carries exorbitant interest rates and fees.
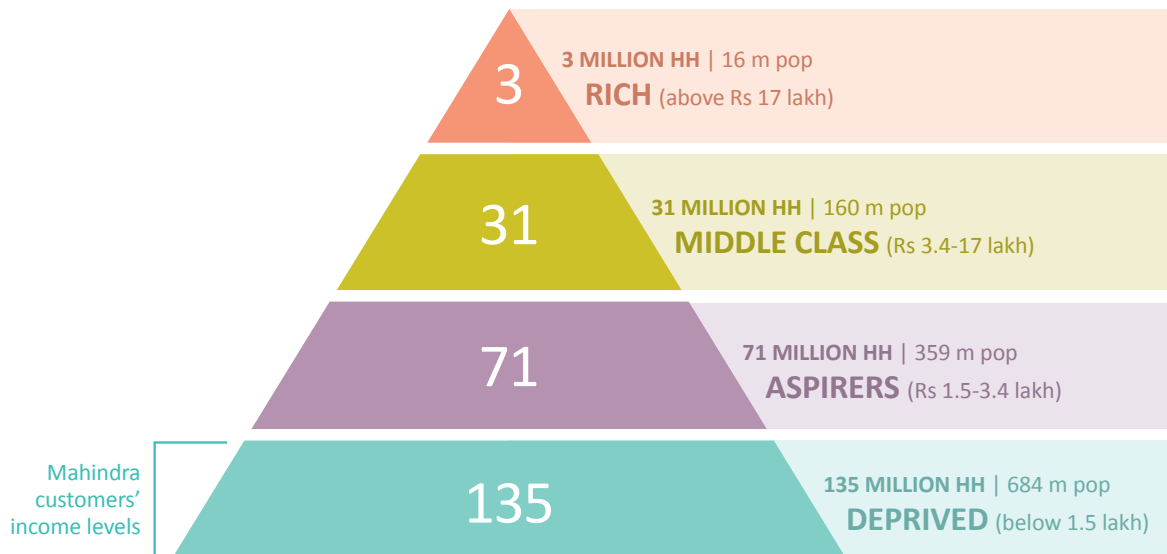
Mahindra Rural Housing Finance currently operates in ten Indian states and caters to hundreds of thousands of home loan borrowers.[4] The loans provided by the company are secured by the property being financed, and used by customers for construction, repairs, purchase of new property and modernization or extension of existing homes.

Mahindra's customers have household incomes in the range of USD 1,000 to USD 5,000 per year (in terms of purchasing power parity). This income data was obtained from:

- Mahindra's customer database, which includes risk assessments of clients' income sources;

- Customers' self-reported income as part of a BIMS customer survey; and

- the Progress out of Poverty Index (PPI), which is based on a set of survey questions developed by the Grameen Foundation.

All three sources of data show that **75 percent of Mahindra's customers constitute the base of the economic pyramid, defined as an individual income of USD 8 per day.**[5] Their average incomes also correspond to the cusp of the 'deprived' and 'aspirers' consumer segments as defined by the National Center for Applied Economic Research in India (see Figure 1). The data collected for the PPI indicate that nearly 45 percent of Mahindra's customers have a 55 percent likelihood of falling below the poverty line of USD 2.5 per day.

Figure 1. Indian Income Pyramid[6] *Entire country stratified by NCAER-CMCR 2010 annual income data*

3 — **3 MILLION HH | 16 m pop**
RICH (above Rs 17 lakh)

31 — **31 MILLION HH | 160 m pop**
MIDDLE CLASS (Rs 3.4-17 lakh)

71 — **71 MILLION HH | 359 m pop**
ASPIRERS (Rs 1.5-3.4 lakh)

135 — **135 MILLION HH | 684 m pop**
DEPRIVED (below 1.5 lakh)

Mahindra customers' income levels

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4   Exact numbers have not been provided for confidentiality reasons.

5   BCtA defines BoP as those living on less than $8 PPP per capita per day in 2005 US dollars.

6   http://www.openthemagazine.com/article/business/the-wealth-report#all

3. Measuring Social Impact

Mahindra's mission statement reads: *"Transforming Rural Lives. Together."* To fulfill this social objective, Mahindra's vision is to be the largest home loan provider in India by reaching 1 million new customers by 2017-2018.

As the housing finance market matures in India, competition is increasing and there is a need for product differentiation. Mahindra is keen to understand the perceived benefits of its loans (beyond the obvious role of financing) to better communicate and tailor its loan products to both existing and new markets.

Keeping true to its mission statement, the company has joined the BCtA and is participating in BIMS to better understand the social challenges that affect its business and the efficacy of its business in addressing them. It has also identified the following five SDGs related to the impact it seeks to achieve:

SDG 1: No poverty
SDG 3: Good health and well-being

SDG 5: Gender equality
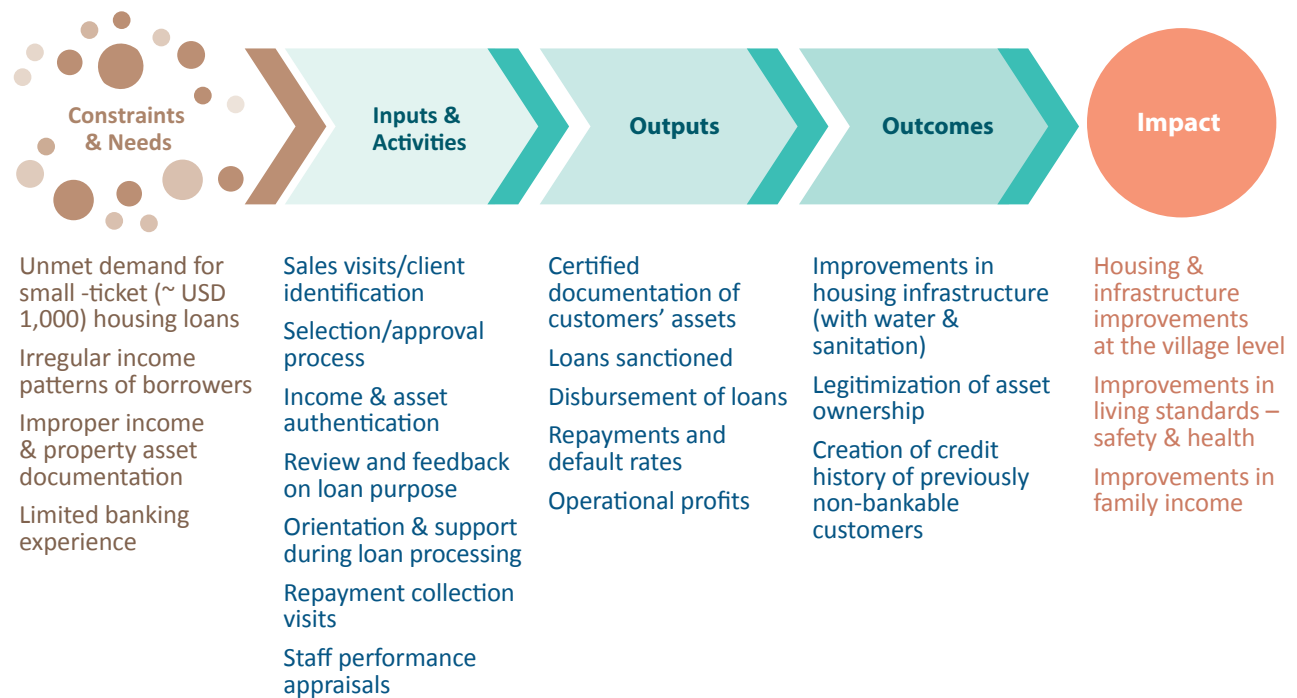**SDG 6:** Clean water and sanitation
SDG 11: Sustainable cities and communities

With support from BIMS, the company has developed a **Social Value Chain** that delineates the business goals, strategies and operations contributing to its identified social impact. The Social Value Chain is an analytical framework combining Theory of Change[7], log-frames[8] and Value Chain Analysis[9] that helps companies to strategically assess the social objectives of their businesses.

Mahindra's Social Value Chain was designed to assess how the company's work achieves its mission of transforming rural people's lives.

Figure 2. Mahindra's Social Value Chain

Constraints & Needs	Inputs & Activities	Outputs	Outcomes	Impact
Unmet demand for small -ticket (~ USD 1,000) housing loans	Sales visits/client identification	Certified documentation of customers' assets	Improvements in housing infrastructure (with water & sanitation)	Housing & infrastructure improvements at the village level
Irregular income patterns of borrowers	Selection/approval process	Loans sanctioned	Legitimization of asset ownership	Improvements in living standards – safety & health
Improper income & property asset documentation	Income & asset authentication	Disbursement of loans	Creation of credit history of previously non-bankable customers	Improvements in family income
Limited banking experience	Review and feedback on loan purpose	Repayments and default rates		
	Orientation & support during loan processing	Operational profits		
	Repayment collection visits			
	Staff performance appraisals			

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7   http://www.theoryofchange.org
8   http://www.adb.org/documents/using-logical-framework-sector-analysis-and-project-design-users-guide
9   Porter, M. (1998) *Competitive Advantage: Creating & Sustaining Superior Performance.*

Indicators

The Social Value Chain helps companies to clearly articulate the social objectives they seek to achieve, and to identify the inputs, activities and outputs that help them to meet those objectives. These parameters are then transformed into indicators that can: (i) be measured; and (ii) inform decision making to improve the company's social impact.

Key parameters, indicators and decision questions arising from Mahindra's Social Value Chain include:

Figure 3. Mahindra's Indicators

Social Value Chain component	Parameters	Indicators	Decision-making questions
Inputs & activities	Sales visits/client identification	Customers' income levels	Is the company targeting customers from low income-groups who are not being reached by the market?
	Selection/approval process	Customers' banking experience	
	Income & asset authentication	Percentage of customers that require credit/asset authentication	Is lack of regular income or asset authentication a major hurdle in assessing customers' credit worthiness?
Outputs (operational)	Scale of business	Active customers year after year	Is the overall business growing?
	Sustainability	Operational profits	Is the overall business profitable?
Outcomes	Legitimization of asset ownership	Percent of male customers with women as co-signatories on loans	Are male customers willing to include women as co-signatories on their loans? How is this perceived?
	Improvements in housing infrastructure (with water & sanitation)	Percent of customers with indoor toilets and sanitation	Do customers value investing in toilets/sanitation using their home loans?
	Improvements in family income	Debt levels of customers pre and post home loan	Do housing loans provide stability, security and savings to households so that they can allocate more resources to income generation instead of ongoing home maintenance and repair?
Impact	Housing & infrastructure improvements at the village level	Percent of village houses that are makeshift	What is the profile of the poorest households that the business can and cannot reach?
	Improvements in livings standards – safety & health	Percent of customers reporting a positive change in safety & health as a significant benefit of their housing loan	Can housing loans be marketed as investments in safety and health?
	Improvements in family income	Percent change in income levels of customers pre-loan and post-loan repayment?	Is there any detrimental effect on income levels or households' indebtedness as a result of a housing loan?

4. Implementing BCtA Impact Measurement Services (BIMS)

BIMS engages participating companies in planning and implementing social-impact measurement through a three-step process. Companies commit to working with the BIMS team for a two-year period. The first six months are focused on developing the Social Value Chain, impact measurement indicators and survey tools; the rest of the period is for data collection.

Articulating the context and rationale for measuring social impact

This phase of BIMS requires companies to take a broader view of their business in terms of its expected returns, the maturity of business activities and the purpose of measuring impact.

Mahindra's management articulated their business along these parameters as:

- The company's primary mandate is to achieve financial returns by pursuing its social mission: to *Transform rural lives. Together*.

- It is a stable, mature business that is consolidating and expanding its operations.
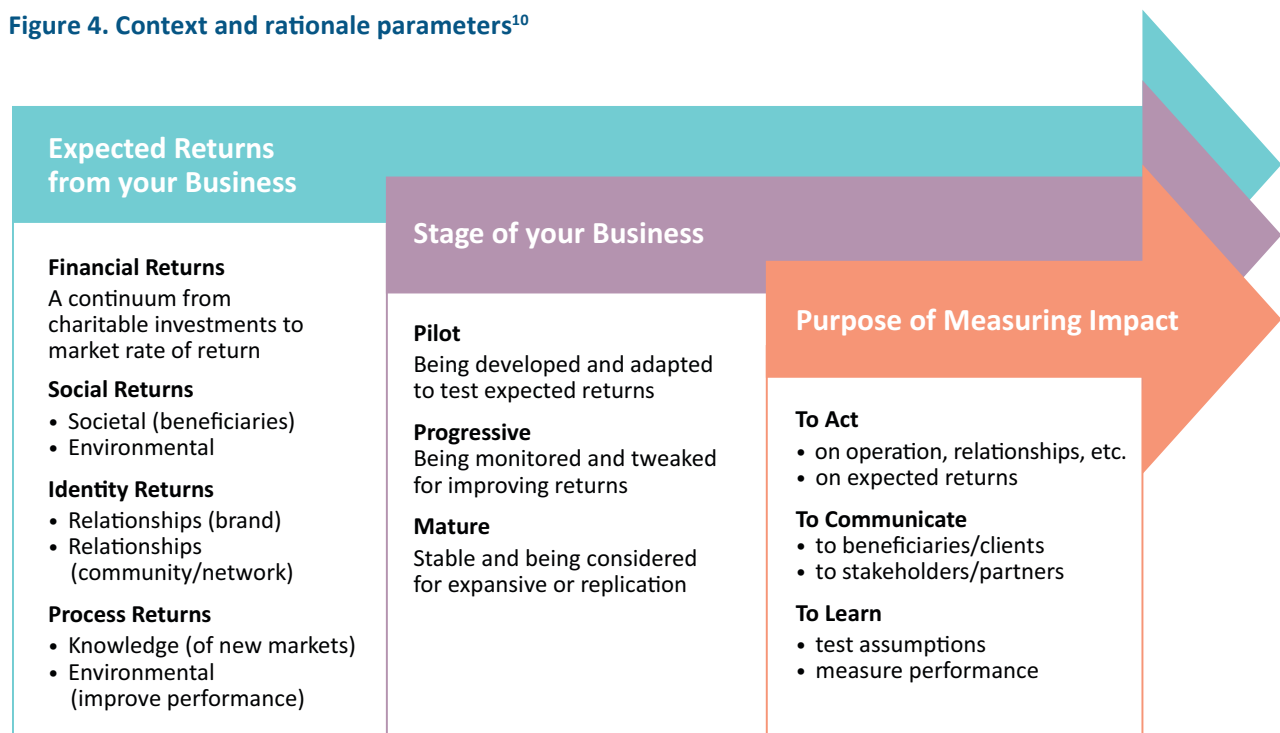
- Its purpose for measuring social impact is to:

  1. better communicate the value of its products and services to its customers; and

  2. learn more about the outcomes and overall impact made by its business.

Developing the Social Value Chain

The next phase of BIMS requires inputs from all levels of the company – especially from staff who directly interact with clients on a regular basis. During this phase, company staff engage in a continuous discussion process, formulating answers to the following questions:

1. What is the social vision/goal of the business?

2. What are the social needs (the problem) that the business is trying to address?

3. What are the social and market constraints that the business is working with and seeking to change?

4. What are the main activities and resources (inputs) that are being deployed by the business? How do these activities impact the social and market constraints identified above?

Figure 4. Context and rationale parameters[10]

Expected Returns from your Business

Financial Returns
A continuum from charitable investments to market rate of return

Social Returns
- Societal (beneficiaries)
- Environmental

Identity Returns
- Relationships (brand)
- Relationships (community/network)

Process Returns
- Knowledge (of new markets)
- Environmental (improve performance)

Stage of your Business

Pilot
Being developed and adapted to test expected returns

Progressive
Being monitored and tweaked for improving returns

Mature
Stable and being considered for expansive or replication

Purpose of Measuring Impact

To Act
- on operation, relationships, etc.
- on expected returns

To Communicate
- to beneficiaries/clients
- to stakeholders/partners

To Learn
- test assumptions
- measure performance

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10 Based on: M*easuring and Improving Social Impacts: A Guide for Nonprofits, Companies and Impact Investors* by Marc J. Epstein and Kristi Yuthas.

5. What indicators of success and timelines are needed to assess the impact that is expected from the activities listed above?

The process of developing Mahindra's Social Value Chain lasted nearly four months and was managed by one of the company's marketing and strategy managers. The process concluded at an onsite workshop with regional managers and sales and collection agents, who deliberated these questions as multi-disciplinary teams, and drew conclusions regarding the social change that the business brings about. All these discussions and inputs fed into the company's Social Value Chain and impact indicators (see Sections 3 and 4 above).

Designing and implementing technology-enabled data collection

In this phase, the company identifies sources of existing data and prepares for additional data collection to measure its social impact against the indicators. To make the data collection process more efficient, BIMS provides the company a web and mobile platform, with smart phones (or tablets) for collecting data. The company uses this platform to conduct stakeholder surveys and collect data on its operations in order to generate social-impact insights.

At Mahindra's Social Value Chain development workshop, field staff training and the onsite piloting of the smart phone-enabled surveys were undertaken concurrently. At the end of this period, Mahindra decided to roll out a single customer survey that compared new and long-term clients' responses on parameters such as income level, changes in living standards, priorities and perceptions. The survey was carried out by Mahindra's field staff, who make regular sales and collection visits to customers within their territories.

Mahindra also carries out regular market research to better understand its clientele – mainly in the form of telephone surveys conducted by external market-research agencies. In addition, the company generates operational data that provides insights into business metrics such as loan-application rates, approval rates, repayment rates, default durations and the loan portfolios of each collection agent.

Mahindra survey implementation

Mahindra operates in ten Indian states through regional offices. For the first round of BIMS surveys, the company stratified the customer population by state and assigned data collection within each state to sales and collection staff who interact with customers on a daily basis.

Ideally, Mahindra should select customers to be surveyed within each region based on systematic random sampling because a complete list of new and old customers is available. This method provides greater control and ease in constructing the sample (i.e. enabling a randomization algorithm upfront rather than at the field level). In reality however, Mahindra field staff are constrained by their territorial routes and the availability of their clients at the time of the survey. Therefore, the survey sampling – while stratified – was essentially non-probabilistic at the time of implementation.

As of the writing this case study, the company had finished surveying one region covering 805 new and old customers. The survey will be replicated in five states in the coming year. After covering these five states, Mahindra's management will decide whether to repeat the survey in other regions based on the data analysis.

5. Improving Social Impact: Data for Decisions

BIMS engages participating companies in going beyond reporting to apply their social impact data in decision making. In order to facilitate this and to ensure that the survey tools, data and lessons learned by each company benefit the larger inclusive business community, BIMS has defined four common questions for all participating companies to answer based on the data they collect through BIMS.

Who are the beneficiaries of the inclusive business?

To answer this question, Mahindra's customer survey included questions from the PPI[11] as well as direct questions regarding income level, family size, awareness of and access to other financial and credit services, and level of indebtedness.

Operational and BIMS survey data show that Mahindra indeed caters to customers that constitute the base of the economic pyramid – earning less than USD 8 per day (in terms of purchasing power parity). These are low-income

11   http://www.progressoutofpoverty.org/country/india

rural households who otherwise would have difficulty gaining access to financing in order to improve their homes. However, since all of Mahindra's clients are land owners and have consistent income sources (a requirement to be eligible for the housing loan), they are therefore above the national and international poverty lines.

What aspects of their customers lives are being impacted by the company?

Mahindra's customer survey was multipronged – it included questions on the condition of customers' homes; their access to toilet, water and sanitation facilities; kitchen ventilation; the status of land-registration and ownership titles; perceived impacts of the loan on the customers' lives; and the perceptions and status of women as co-owners and co-borrowers.

While customers reaffirmed the improvement of their homes as an obvious impact, the largest positive changes in customers' lives were actually a reduction in the expense of maintaining and repairing these homes, and an increase in their property values. Yet a small but sizeable number of customers raised concerns about the increase in their level of indebtedness.

The majority of customers also believed that women should be co-borrowers to housing loans because they consider women to be co-owners of the property and more responsible than men.

Mahindra expected a clear and significant impact on the condition of its customers' water and sanitation facilities – and consequently on their health. However, the preliminary data did not show any improvements between new and old customers who had access to enclosed toilets with piped sewage.

How is the business achieving this impact?

Mahindra monitors the efficacy of its operations regularly through a robust enterprise resource planning system. Major business parameters are tracked by this system.

The BIMS survey did not collect any significant operational data focused on the inputs and activities within the Social Value Chain. However, it did include questions about how customers heard about the company and which of the company's services did the customers value most.[12]

Can the business increase its impact?

When inclusive businesses grow, they are likely to have greater social impact by reaching out to – and impacting – the lives of a larger number of low-income customers. However, increases in social impact need not be dependent on business growth only. Global priorities and commitments like the SDGs can guide businesses in considering a wider range of social outcomes to influence. In the case of Mahindra, three major insights related to SDGs resulted from BIMS:

1. Mahindra can explore how to increase its influence on SDG 5: Gender equality as part of its social mission. Mahindra already insists that women be included as co-borrowers on the loans, and the BIMS survey showed that the majority of customers also believe that women should be co-owners; but, actual property-ownership titles still remain only in the names of the male household members.

2. SDG 6: *Clean water and sanitation* can also be impacted as part of Mahindra's social mission. Currently, customers do not appear to be investing their home loans in upgrading water and sanitation facilities. As a home-improvement financier, Mahindra can educate its customers about the benefits of installing clean water and sanitation facilities.

3. Mahindra is already impacting SDG 1: *No poverty* by increasing access to financial services for people who are considered 'un-bankable'. However, it is only scratching the surface of the market because the majority of its customers view housing as an expense rather than an investment, and take on housing loans only when they have income or savings that give them the confidence to repay the loan. By marketing housing as an investment and a fundamental priority, Mahindra can expand its business and increase its social impact even further.

6. Lessons Learned and Next Steps

This final section of the case study includes a set of questions posed to Mahindra's management regarding their experiences with BIMS, including challenges they faced and how they intend to proceed with social impact measurement in the future.

Prior to BIMS, how did you measure social impact across the organization or for specific projects?

- According to Mahindra's Marketing and Strategy Officer, prior to BIMS, *"We did not have a structured process to measure the social impact of our business model. And while we have CSR* [corporate social

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12   For confidentiality reasons, this data is not provided here.

responsibility] *and corporate sustainability teams that track the impact of our CSR and sustainability initiatives, BIMS was the first instance where we attempted to quantify the social impact of our core business on the lives of our customers"*.

Will Mahindra's strategy or operations change in any way, based on the experience with BIMS?

- "As part of the BIMS exercise, we had one member of our marketing team overseeing the data collection and coordinating efforts with the field teams in Bihar and Maharashtra. We plan to continue with this arrangement and to scale our efforts to capture data across all states where we have large customer populations."

- "Engagement with BIMS has not only enabled us to quantify the social impact of our business model, but has highlighted opportunities such as our customers' desire to improve income, health and education for other members of the family. This has led us to explore customized insurance and mutual fund products that can address the unmet needs of our customers."

- In terms of allocating financial and human resources, "*We would like to expand our data collection efforts across states where we have significant customer populations and to sensitize our field staff about the importance of gathering data to detect changes in spending patterns and understand our customers' unmet needs*".

- Mahindra would like to *"…remain involved with the BCtA to understand how we can link our business operations with the SDGs, learn from the experiences of other organizations doing similar work and share best practices"*.

- Data from the BIMS survey shows that the low prevalence of women's co-ownership of property may not be a cultural issue. Mahindra's practice of insisting that women become co-borrowers is not only progressive, but is considered acceptable even by its customers. However, *"transmuting a co-borrower into a co-owner poses certain legal challenges and a solution needs to be structured."*

- Mahindra markets its loans as a means to satisfy the most basic of "fundamental priorities" – of not just owning a home, but to also ensure sanitation and hygiene (toilet construction). Newly developed marketing materials emphasize the importance of hygiene, sanitation and house ownership in raising the overall standard of life.

What did Mahindra find useful about the BIMS process, and what implementation challenges did it encounter?

- *"Developing the Social Value Chain provided a quantitative basis and analytical foundation for our business and the wider social purpose it serves. This foundation can now be enhanced to provide strategic insights on future opportunities that we can tap into. The team learned a lot about framing questions, developing a work plan for implementation and leveraging technology for data collection."*

- Scheduling the survey work during regular work hours was a challenge: *"We needed to raise staff awareness about the importance of this measurement and convince the field staff that the additional work would lead to greater business benefits down the line".*

- Expanding survey-based social impact measurement across regions will be challenging in terms of cost and logistics: *"Obtaining a greater number of devices in a cost-efficient manner, making modifications to the survey questionnaire and disseminating it in a multitude of Indian languages* [so that it is easily understood by our customers and field staff] *will be demanding in terms of financial and human resources."*