

# Estimating the Potential Market for Microfinance in Pakistan including Credit, Savings, Payments and Insurance

By: Jaffar Jassim, Bilal Ghani, Amna Imtiaz, Amal Naeem Qureshi

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# Acronyms

A2F Access to Finance
GoP Government of Pakistan
HIES Household Integrated Economic Survey
NPR National Poverty Report
PIHS Pakistan Integrated Household Survey
PMN Pakistan Microfinance Network
PSLM Pakistan Standards of Living Measurement
SBP State Bank of Pakistan

## Section 1 - Introduction & Methodology

Over the last three decades, the microfinance sector in Pakistan has evolved from a few philanthropic organizations to a mature industry that provides a multitude of services to millions of Pakistanis. Growing from 40,000 borrowers and a handful of MFIs in 1996 to 6.9 million active borrowers, 35 million active savers, 8 million policy holders and 46 reporting Microfinance Providers (MFPs) in 2019 <sup>1</sup> (including microfinance banks, specialized microfinance institutions, rural support programs and other microfinance providers), the microfinance sector in Pakistan has come a long way from when it started operations in 1996.

While the Government of Pakistan (GoP) initiated direct and subsidized credit schemes in rural areas in the 1970s, there were no formal or non-governmental institutions that provided microfinance to poor households, until the 1980s, when major breakthroughs such as the Rural Support Programmes (RSPs) and NGOs built specifically to provide microcredit services paved the way for successful financial intermediation for the poor. In the 1990s, commercial banks began providing these services as well which further increased the scope and outreach of the microfinance industry.

The penetration rate of microcredit with respect to the number of borrowers stood at 34%; however, this was based on the potential credit market of 20.5 million borrowers estimated in 2015 <sup>2</sup>. Over the past 5 years, the credit market has grown from 2.8 million borrowers in 2013 to 6.9 million borrowers in 2018 growing at an average rate of 12%. Similarly, the number of deposit accounts has increased from 5 million savers in 2013 to 35 million borrowers in 2018, growing at an average rate of 17% over the past 5 years, whereas insurance has increased from 3 million in 2013 to 8.5 million in 2018, at an average rate of 13% over the past 5 years <sup>3</sup>.

In 2007, PMN estimated the potential microcredit market at 27 million and revised the number down to 20.5 million in 2015 with an alternate estimation methodology. Given the growth in microfinance market over the past 5 years, and considering the potential of markets in KP and Baluchistan where outreach is very low compared to Punjab and Sindh coupled with an increasing population, especially in light of the 2017 population census merits us to update the potential size of microcredit along with other microfinance segments such as micro-savings, microinsurance and micropayments.

This expansion of the industry, coupled with the new population census held in 2017, merited the need for a revised market estimation study to be carried out. An updated market estimation of the microfinance industry would yield useful and valuable information for industry stakeholders and policy makers, providing a macro-level picture that would assist stakeholders in planning strategies that would assist them in tapping into underserved markets and expanding microfinance in the country.

This report provides a statistical overview of the current microfinance landscape in Pakistan with respect to the potential markets for Credit, Deposit, Savings, Insurance and Payment and further, it explores three penetration levels based on data collected in the following three studies: Access to Finance Survey, Household Integrated Economic Survey and the National Poverty Report.

House

<sup>1</sup> PMN MicroWatch – Q4 2018 2 PMN MicroWatch – Q4 2018

<sup>3</sup> PMN MicroWatch – 2013-2018

## **Overview of Previous Estimation Methodologies**

#### First Estimation Model, 2007

In 2007, PMN conducted the first microcredit estimation study, using a methodology based on the 1998 population census and the Household Integrated Economic Survey (HIES), and incorporated parameters such as age, the type of roof on households, etc. The population was estimated using constant growth rate of population between ages 18 and 64, whereas households were calculated using average household size. These were categorized according to roof type; wood/bamboo, cement/iron and superior roofing materials. Those households with roofs made of wood/bamboo and cement/iron were assumed to have residents more likely to be microfinance clients. The results of the estimation showed that the potential market size of microfinance stood at 32.6 million borrowers.

However, there were issues pertaining to credibility of the data used for this estimation, as the estimation was based on population estimations. Moreover, the assumptions made in the model were deemed to be too simplistic and stretched; for instance, the characterization of potential clients based on roof types needed to be modified. Moreover, the average loan size had increased and upper limits to loan sizes had also been revised, thereby making it likely for people living in homes made from superior roofing materials to also be potential microfinance borrowers <sup>4</sup>.

#### Second Estimation Model, 2015

In 2015, PMN developed an estimation model that attempted to rectify the shortcomings of the 2007 study by incorporating three main parameters. It was based on Kraus' (2012) methodology which was deemed to be more applicable to the Pakistani context as it defined penetration in terms of both borrowers and loan amount. These included individuals who had i) an outstanding loan from any source at the time of the survey, ii) those who fell within the 18-65 age bracket and iii) those who had obtained a loan between PKR 10,000 to PKR 150,000 These proportions were then projected using the 1998 total population instead of the adult population or the 18-65 population. The total estimated market size that resulted from the study was 20.5 million going by the loan size range of Rs. 10,000 to Rs. 150,000, and 17 million using the loan range of Rs. 20,000 to Rs. 150,000.

This estimate was done using HIES data of 2012-2013 and population projections. However, with the new population census providing updated population figures, there is a need for a new market estimation study to be carried out with the latest data set and also explore some other alternate estimation models. Also, the assumptions that those who currently or previously borrowed from any source whether formal or informal were deemed simplistic and do not actually capture other unserved and untapped segments.

#### Proposed Methodology, 2018

- 1. Estimating potential market for microcredit: Building up on the estimation model used in 2015, our updated estimation considers 2 different models: i) the HIES data along with latest population census as done previously, and ii) an alternate estimation model using certain parameters used in 2015 Access to Finance Survey conducted by the State Bank of Pakistan (SBP) and Gallup Pakistan, and the 2017 population census.
- 2. Estimating potential market for micro-saving and micropayments: This model uses the A2Fs data set from 2015. Further filtering of results was done using the National Poverty Report as the A2F dataset did not have the variables used to calculate the poverty scorecard.
- 3. Estimating potential market for microinsurance: The estimation for potential of microinsurance considered 2 different models, i) using the A2Fs data set from 2015, ii) an alternate estimation model using the SECP Microinsurance Rules from 2014 which describe a "low-income person" as someone whose monthly income is less than the minimum taxable income as prescribed by the GOP or as may be prescribed by the Commission as the potential market for microinsurance.
- **4.** Estimating microenterprise potential for microcredit: This estimation was done using the latest HIES Data Set (2015-16), considering all enterprises that had an outstanding debt at the time of the survey were identified.

Note: It is important to note that there exists a clear distinction between the potential of microfinance and its actual demand. This report only looks at the potential of and not the demand for microfinance. The calculation for demand relies upon various factors, such as the marketing mix, and since all four services analysed in this report vary greatly in those aspects, an accurate estimation of their demand would require an examination of factors for which data is currently not available. However, with the information at hand, it can be safely deduced that the actual demand for microfinance is less than its estimated potential, and to reach to the market potential would require innovations and enablers for the microfinance industry.

#### **Data Sets Used**

At the outset, it was expected that calculations would be made based on the Access to Finance (A2F) Survey conducted in 2015 by Gallup Pakistan, in collaboration with M/s Horus Development Finance and on behalf of the State Bank of Pakistan (SBP). This survey was considered by the GOP for its financial inclusion indicators and has been cited in the National Financial Inclusion Strategy. This would have been a departure from the PMN 2015 Potential Estimation.

However, while data from the A2F survey could be used for estimations of the potential of micropayments and microdeposits, the survey did not cover loan values and therefore could not be used for an estimation of microcredit potential. Both the A2F versions of 2008 and 2015 did not include any questions regarding the value of respondents' outstanding loans at the time they were conducted; this reduced the possibility of data mining which is crucial for tailoring the numbers for estimations.

Therefore, the dataset of the Household Integrated Economic Survey (HIES) from 2015-16 has been used to calculate the potential of microcredit. This has posed an added advantage as it allows for comparisons with market potential estimation done in 2015, as well as an earlier version of the same dataset from 2010-11.

Additionally, the National Poverty Report (NPR) has been used to create further scenarios by restricting the potential market estimation by removing the "extreme poor" from the calculations. This has been done under the assumption that people belonging to this group require direct cash transfers rather than microfinance services and hence do not fall in the microfinance net.

A more comprehensive overview of the three datasets that have been used to make these estimations is provided below:

#### 1. Access to Finance (A2F) Survey

SBP initiated this project to assess the state of financial access and usage within Pakistan. This comprehensive nation-wide study of more than 10,500 respondents was designed to measure and analyse the current and foreseeable demand for financial services. Two versions of this survey study have been used in this report: the A2F Study 2008 and the A2F Survey 2015, for comparison.

The A2F Study 2008 yielded a rich database on all aspects of access to financial services and provided useful inputs for analysis, planning and implementation of various initiatives and programs. The A2F Survey 2015 augmented the study and provided a basis for comparison. The 2015 survey results demonstrated that access to financial services has increased significantly in Pakistan since 2008: 16% of the adult population now has bank accounts (including mobile wallets) compared to only 11% in 2008, and 23% has access to formal financial services compared to only 12% in 2008. Women have also advanced remarkably in terms of financial inclusion with 11% utilizing banking services in 2015 as opposed to only 4% in 2008.

#### 2. PSLM – Household Integrated Economic Survey (HIES) 2015-16

A refined version of the merged survey (Pakistan Integrated Household Survey with Household Integrated Economic Survey) was conducted during 2001-02 which consisted of two separate modules that allowed for more detailed data collection independently from male and female respondents, by male and female enumerators, respectively. In 2004, the survey was renamed as the Pakistan Social and Living Standards Measurement (PSLM) Survey and had two iterations on alternate years for the district and national level. The last HIES conducted in 2013-14 by Change of Base of National Accounts (CBNA) integrated HIES—which provides a detailed account of the income and consumption patterns of households—with the Family Budget Survey (FBS) which is used to compute weights for the Price Index.

#### 3. National Poverty Report (NPR)

The Planning Commission of Pakistan has been making estimates of the national poverty-line since 2001. From the 1990s till 2011-12, the official definition of poverty was only linked with nutritional inadequacy. However, developmental changes in the country necessitated an update, and after a rigorous consultative process during 2013-2014, the official definition of poverty was changed to the broader Cost of Basic Needs (CBN) approach. This report presents the national poverty number along with its disaggregation at the rural-urban level in layman terms. It also explains some data issues that were highlighted at different forums and had caused confusion during poverty debates.

#### Section 2 - Potential Market Estimation

#### I- Microcredit

Microcredit has grown rapidly in the past 5 years from 2013 to 2018. Compared to 2013, active borrowers grew from 2.83 million in 2013 to 6.9 million borrowers in 2018.

For estimating the potential Microcredit market, we are exploring two models, one using the existing model based on the 2015 microcredit estimation done by PMN which uses HIES data, and a second proposed model which uses parameters using the Access to Finance Data.

#### 1. Model 1 – Based on Existing Estimation Model and using HIES data

In order to provide an updated estimate of the potential market size of microcredit in Pakistan, the methodology employed is consistent with PMN's methodology employed in 2015. This methodology contained information on socio-economic indicators which were reliable, accessible and updated, extracted from the data from the HIES which contains the relevant information on households and loans taken over the last one year <sup>6</sup>.

#### A 4-step approach was employed to make this calculation:

#### Step 1:

The HIES 2015-2016 data set was used to identify individuals who have an outstanding loan from any source or have borrowed a loan in the year preceding the year during which the survey was conducted were identified.

#### Step 2:

The individuals identified in Step 1 were filtered for those falling in the 18+ age bracket. This was done to ensure that the estimation was restricted to the legal age at which a person can become the owner of a deposit account.

#### Step 3:

Various estimation scenarios were created by restricting calculations to the individuals who had an outstanding loan or had borrowed in the past 12 months. The loan size was restricted between PKR 10,000-150,000 as PKR 150,000 is the upper limit for microcredit for individuals as mandated by SBP and a lower range of PKR 10,000 as MFPs typically don't lend below this threshold. For sensitivity analysis, we also looked at different loan sizes of PKR 20,000-150,000 and PKR 20,000-200,000.

#### Step 4:

The numbers were then projected on the 2017 total population, the 2017 adult population, and the 1998 total population.

#### Results

Using the HIES 2015-2016 data set to identify individuals who have an outstanding loan from any source or have borrowed a loan in the year preceding the year during which the survey was conducted, we arrived at the following results:

Table 1: Potential market for microcredit - Model 1 Results

Model 1	Estimate 1: Projections on adult population from 2017 (18+)	Estimate 2: Projections on total adult population from 2017	Estimate 3: Projections on total adult population from 1998
Loan size 1 (PKR 10,000-150,000	17.4 million	33.6 million	21.2 million

Table 2: Potential market for microcredit - Sensitivity Analysis

For sensitivity analysis	Estimate 1: Projections on adult population from 2017 (18+)	Estimate 2: Projections on total adult population from 2017	Estimate 3: Projections on total adult population from 1998
Loan Size 2 (PKR 20,000 - 150,000)	14.9 million	28.7 million	18.1 million
Loan Size 3 (PKR 20,000 - 200,000)	16.1 million	31 million	19.6 million

According to this Estimate 1 (projections using adult population data from Census 2017), when the loan size is between PKR 10,000 and PKR 150,000, the estimated potential market for microcredit is **17.4 million men and women.** 

In the 2015 estimation model, the entire population of Pakistan was included, including people who are 18 years or below. If this principle is replicated in Estimate 2, updated to the total population according to the Census 2017, the potential microcredit estimation in this model is nearly twice as much as in Model 1 (33.6 million for Loan Size 1).

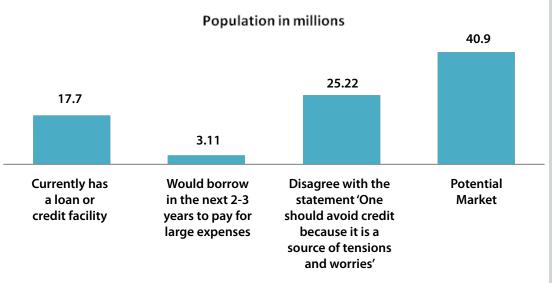
Estimate 3 is a replication of Estimate 2 but uses the population count from the Census 1998. Here, the potential estimation for Loan Size 1 comes to **21.2** million.

# 2. Model 2: An Alternate Estimation Model using Access to Finance Data

An alternate exercise can be conducted for estimation using the A2F data, going by whether the individual currently has a loan or credit facility and whether the individual is currently a non-borrower but could potentially borrow in the next 2-3 years to pay for large expenses, and in the questionnaire whether the individual disagreed with the statement "one should avoid taking credit because it is a source of tension and worry" – this captures the segment of the population that does not have a negative perception of credit. These characteristics were used as a proxy for individuals who have an outstanding loan from any source, their loan amounts or have borrowed a loan in the year preceding the year.

As shown in Figure 1 below, approximately 17.7 million adults currently own a loan, 3.11 million are potential buyers and 25.22 million believe one should not avoid credit because it is a source of tension and worry; these individuals automatically become part of the potential market for microcredit, estimated to be 40.9 million for people between 18-65 years old. This number is cumulative of all unique individuals that fall into each of the category.

Figure 1 – Alternate Estimation Model using A2Fs Data



We recommend using Model 2's estimate on potential market size for microcredit as we believe the methodology employed in Model 2 is more robust compared to Model 1. In Model 1, the HIES methodology projections are done on the total population, and only considers individuals who have taken loans in the past or have an outstanding loan in the last year, while ignoring the willingness to borrow in the future and attitude towards taking loans.

Table 3 - Comparison of results from Model 1 & 2

Model 1 (HIES data, adult population from 2017 (18+)	17.4 million
Model 1 (HIES data, total adult population from 2017)	33.6 million
Model 2 (A2Fs data, adult population from 2017 (18-65))	40.9 million

Model 2 considers individuals who show willingness to borrow as those who are planning to borrow in the next 2-3 years while also considering those who do not see taking loans negatively. Based on literature, corporating 'willingness' is essential to have a concrete foundation for an estimation framework <sup>7</sup>.

# **II- Microdeposits**

The number of deposit accounts has increased from 5 million savers in 2013 to 35 million borrowers in 2018, growing at an average of 17% over the past 5 years.

For the estimation of potential market for microdeposits, the A2Fs 2015 data set was used, employing the 4-step approach below.

**Step 1:** 12 "use cases" of deposit accounts were identified, and with the help of the A2F dataset, individuals who said they were undertaking these use cases at the time of the survey were singled out. The assumption here was that these individuals may or may not be using their deposit account but are availing other services through their deposit accounts. The "use cases" as given below:

- · Respondents who are saving currently
- · Respondents who are sending remittances
- · Respondents who are receiving remittances
- · Respondents who have insurance
- Respondents who want insurance
- · Respondents who are receiving a salary
- Respondents who would like to receive salary in a bank
- · Respondents who are doing active business
- Respondents who would like an account in the future for business purposes
- · Respondents who would like to guard their money against theft

**Step 2:** The individuals identified in Step 1 were filtered out for those falling in the 18-65 age bracket to ensure that the estimation was restricted to the legal age at which a person can become the owner of a deposit account.

**Step 3:** Different estimation scenarios were created by filtering the results and restricting the analysis to individuals falling into three poverty typologies as defined in the NPR 2015: Transitory Non-Poor, Transitory Vulnerable and Non-Poor. Three estimation models were used to estimate the potential market, i) estimate 1: results filtered by age, ii) estimate 2: results filtered by age and NPR typologies and iii) estimate 3: results from estimate 2 are reduced to 50% and 25% to rationalize the numbers.

**Step 4:** Another scenario was created for estimation by cutting down the final numbers by 25% and 50% to ensure the numbers reflected the reasonability criteria, i.e. not all potential market individuals have an interest in becoming microfinance users.

Since the A2F dataset did not have the variables used to calculate the poverty scorecard, further filtering of results was done using the NPR. The NPR estimates the poverty bands as: i) extreme poor (<50% of poverty line), ii) ultra-poor (>50% and <75% of poverty line), iii) poor (>75% and <100% of poverty line), iv) vulnerable (>100% and <125% of poverty line), v) quasi non-poor (>125% and <200% of poverty line) and vi) non-poor (>200% of poverty line).

#### **Results**

The results based on the different estimation models explained above using the A2Fs 2015 data are provided below.

Table 4 – Potential market for microdeposits

	Estimate 1: Results filtered by age (18-65)	Estimate 2: Results filtered by age (18-65) and NPR typologies	Estimate 3: Results from Estimate 2 reduced to 50%	Estimate 3: Results from Estimate 2 reduced to 25%
Potential market for micro deposits	60.9 million	50.7 million	25.4 million	12.7 million

Estimate 1 suggests that the potential market for microdeposits for the target market, in the age bracket of 18-65 years in the year 2018-19, is estimated as **60.9 Million adults** across Pakistan.

However, the potential estimated market for microdeposits after filtering out the extreme poor—those who require cash transfers and are unlikely to avail microfinance services—and restricting the target audience to the 18-65 age bracket is **50.7 million people** in Estimate 2. However, using two data sets in estimating the market is not recommended.

Estimate 3 revealed the potential market for microdeposits when the numbers were reduced to an expected 50% and 25% reasonability criteria. Reduced by 50%, the number stands at **25.4 million** and when reduced by 25%, the number stands at **12.7 million** for people between the ages of 18-65.

We recommend using Estimate 1 for potential market size for microdeposits as we believe this is more robust compared to other estimates. In Estimate 1, only one data set is used, and the results are filtered by age (keeping in mind the legal age for when a person can legally own a bank account). Since the MFBs do not have an upper limit for deposits and given the introduction of "Asaan" account by the SBP where an individual can open a deposit account from Rs. 100, MFBs all population segments can become the potential market.

#### III- Microinsurance

Over the past 5 years, microinsurance has grown 13%, from 3 million users in 2013 to 8.5 million in 2018. The primary aim for this estimation was to identify respondents from the A2F Survey who had a "use case" of insurance to estimate the potential market. The "use case" is identified as those who reported that an unforeseen risk is deeply felt by them. This unforeseen risk could be of different types, including risks to health and life, and unexpected expenses such as those incurred on funerals or weddings.

Two models were used for estimation, Model 1 uses the A2Fs data and "use case" of insurance, and Model 2 uses the PSLM 2014-2015 dataset and the SECP Microinsurance Rules, 2014.

#### 1. Model 1 – Based on "use case" and A2Fs 2015 dataset

The following 3-step approach using the A2Fs 2015 dataset was employed:

**Step 1:** Individuals who had felt the risk of unforeseen events happening in their life (proxy about asking other people) were identified through data processing of the micro-file. We used respondent-stated foreseen risks as relevant proxies for health and life insurance potential market-estimation tools.

**Step 2:** The individuals identified in Step 1 were filtered for those falling in the 18-65 age bracket to ensure that the estimation was restricted to the legal age at which a person can become the owner of a deposit account.

**Step 3:** Different estimation scenarios were created by filtering the results and restricting the analysis to individuals falling into three poverty typologies as defined in the NPR 2015: Transitory Non-Poor, Transitory Vulnerable and Non-Poor. The two estimation models used are i) estimate 1 which filters the results by age and ii) estimate 2 which filters results by age and NPR categories.

#### Results

Table 5 - Potential market for microinsurance - Model 1 Results

	Estimate 1: Results filtered by age (18-65)	Estimate 2: Results filtered by age (18-65) and NPR typologies
Potential market for health insur- ance	57 million	44.1 million
Potential market for life insurance	22.3 million	15.9 million

The calculation in estimate 1 reveals that in the 18-65 age bracket, there is an estimated **57 million** health insurance potential and a **22.3 million** life insurance potential.

The analysis in estimate 1 was further filtered by poverty profiling and removing those that fell under the "Extreme Poor" category, which shows that there is an estimated 44.1 million health insurance potential and 15.9 million life insurance potential.

# 2. Model 2 – Alternate Estimation Model - based on PSLM 2014-2015 dataset and the SECP Microinsurance Rules, 2014

The SECP Microinsurance Rules from 2014 which describe a "low-income person" as someone whose monthly income is less than the minimum taxable income as prescribed by the GOP or as may be prescribed by the Commission as the potential market for microinsurance. By using this definition combined with the latest income tax brackets, with the help of the recent PSLM 2015-16 dataset for income calculations for every male and female adult, all those individuals were identified who earn less than the taxable income (PKR 33,000). 96.5% people in the PSLM data earn less than PKR 33,000 8. Projecting this number on the population, this figure translates into 96.8 million adults who are the potential market for microinsurance, between the ages of 18-65.

Figure 2 - Alternate Estimation Model using SECP Microinsurance Rules, 2014

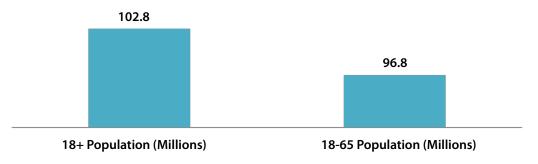


Table 6 - Comparison of results from Model 1 & 2

Model 1- Estimate 1 (A2Fs	Health insurance	57 million
data) - Results filtered by age (18-65)	Life insurance	22.3 million
Model 1 - Estimate 2 (A2Fs data) - Results filtered by age	Health insurance	44.1 million
(18-65) and NPR typologies	Life insurance	15.9 million
Model 2 – SECP 2014 Microin-	18+ population	102.8 million
surance Rules	18-65 population	96.8 million

We recommend using Model 2 (18-65) estimate for potential market size for microinsurance as it is the official definition as specified by SECP. In Estimate 1, only one data set is used, and the results are filtered by age (keeping in mind the legal age for when a person can legally own a bank account). It is important to stress here that this is the potential market, and actual penetration and demand may be less due to various factors such as awareness and other enablers 9. The potential for microinsurance is huge, and with the advent of Sehat Insaf, around 3.5 million individuals have already been enrolled in the program. In addition, through various types of bundled insurance policies, credit-life insurance and uptake in voluntary micro-insurance, this number is expected to increase manifolds as financial inclusion and awareness increases. Actual demand and penetration of micro-insurance will eventually be linked to and depend on many other factors as discussed above.

<sup>9</sup> According to a report published by World Bank in conjunction with SECP, an estimate of the potential microinsurance market is of 80 million individuals. Source: Microinsurance in Pakistan: A Diagnostic Study, 2012, World Bank & SECP, Page 53)

# **IV-** Micropayments

For estimating the potential of micropayment, the following steps were performed using A2F data:

**Step 1:** Individuals were identified who had made at least one payment in the 12 months prior to the survey to the following institutes/businesses:

- University/school
- Financial institution
- Local national taxes
- Health facilities
- Doctor/health service
- Rent
- Utility company
- Store/retailors
- Business purposes
- Employees payment
- Exceptional expenses: funeral, etc.
- Others

**Step 2:** The individuals identified in Step 1 were filtered for those falling in the 18-65 age bracket to ensure that the estimation was restricted to the legal age at which a person can become the owner of a deposit account.

**Step 3:** Different estimation scenarios were created by filtering the results and restricting the analysis to individuals falling into three poverty typologies as defined in the NPR 2015: Transitory Non-Poor, Transitory Vulnerable and Non-Poor. The three estimation models include i) estimate 1 which filters the results by age, ii) estimate 2 which filters results by age and NPR categories and iii) estimate 3 where results from estimate 2 are reduced to 50% and 25% to rationalize the numbers.

#### **Results**

Table 7 – Potential market for micropayments

	Estimate 1: Results filtered by age (18-65)	Estimate 2: Results filtered by age (18-65) and NPR typologies
Potential market for micropayments	82.1 million	69.1 million

In Estimate 1, the calculation showed that the potential market for micropayments is **82.1 million people** for the 18-65 age brackets.

In Estimate 2, the calculation incorporated poverty profiling and analysis of the potential micropayments after excluding the 'extreme-poor' category. Consequently, the estimate dropped to **69.1 million** for the 18-65 age bracket.

We recommend using Estimate 2 for potential market size for micropayments as we believe this is more rigorous compared to other estimates. In Estimate 2, only one data set is used, and the results are filtered by age and incorporate poverty profiling; leaving out that segment of the population that is not eligible for microfinance, making the results more sound.

# Section 3 - Estimating Microenterprise Potential for Microcredit

To reiterate, one of the objectives of this estimation study was to calculate and analyse the microenterprise potential for microfinance use. The methodology used for this is consistent with the one used in 2015 by PMN. It uses the latest HIES Data Set (2015-16) through which all enterprises that had an outstanding debt at the time of the survey were identified. These enterprises were then labelled as the potential market based on their credit-seeking behaviour which indicated that conversion to micro-loans was a realisable possibility.

The following steps were taken to conduct this exercise:

**Step 1:** HIES/PSLM as a household survey collects information on both loans outstanding and the structure of employment. Using this, microenterprises were identified as those respondents who claimed they were a) self-employed and b) employing less than 10 individuals at their business. Through this filter, people who were either salaried workers or doing manual labour were excluded along with those who were not micro-business owners (i.e. employing more than 10 people). Household heads who were either a proprietor or a partner in a non-agricultural establishment that employed less than 10 people and had an outstanding loan or had borrowed in the past 12 months were included in the potential market for microenterprises.

**Step 2:** From the cases identified in Step 1, it was determined whether they had either an outstanding loan or had borrowed a loan in the past year. The loan size was restricted between PKR 60,000-1,000,000 as PKR 1 million is the upper limit for microenterprise loans as mandated by SBP. For sensitivity analysis, we also looked at different loan sizes of PKR 150,000-1,000,000. Estimate 1 uses no loan filter, estimate 2 filters loans by amounts between PKR 60,000-1,000,000 and estimate 3 filters loans by amounts between PKR 150,000-1,000,000.

**Step 3:** Using the sector of employment, the numbers thus acquired were distributed across sectors to calculate potential for microenterprises of different sectors and their potential for becoming microfinance users.

#### **Results**

Table 8 – Microenterprise potential for microfinance

	Estimate 1: Results by No loan filter	Estimate 2: Results by Loan Size PKR 60,000 – 1,000,000	Estimate 3: Results by Loan Size PKR 150,000 – 1,000,000
Microenterprise potential for microfinance	5.8 million microenterprises	539,570 microenter- prises	273,864 enterprises

#### Estimate 1: Results by No loan filter

According to this estimate, there are about **5.8 million** micro-enterprises. In some sense, all these businesses constitute a potential market for the microfinance industry as all businesses have financial needs. Moreover, according to most surveys, not having access to financial services is a significant barrier to growth for these businesses.

The table below shows the sectors in which these microenterprises operate.

Table 9 - Microenterprise Sectors and Potential Market (No Loan Filter)

Microenterprise Sectors	Potential
Mining & Quarrying	13,985
Manufacturing	1.3 million
Electricity, gas, steam and air conditioning supply	48,363
Water supply; sewerage, waste management and remediation activities	42,536
Construction	0.96 million
Wholesale and retail trade; repair of motor vehicles and motorcycles	1.4 million
Transportation and storage	0.7 million
Accommodation and food service activities	0.2 million
Information and communication	55,938
Financial and insurance activities	76,332
Real estate activities	41,954
Professional, scientific and technical activities	61,182
Administrative and support service activities	57,104
Public administration and defense; compulsory social security	0.3 million
Education	0.4 million
Human health and social work activities	0.1 million
Arts, entertainment and recreation	19,811
Other service activities	0.4 million
Total	5.8 million 10

We recommend using Estimate 1 for potential market size for microenterprises as we believe this is more robust compared to other estimates. According to the definitions, a microenterprise is considered any enterprise which employs 10 or fewer individuals – for some microenterprises, their credit needs may be more than Rs. 1 million, however, that is not to say that the microenterprise loans which have an upper limit of Rs. 1 million would not go on to fulfill in whole or part of their needs.

# **Section 4 - Summary**

Based on our recommendations, a summary of estimated numbers for microdeposits, microcredit, microinsurance and micropayments is given in the table below:

#### **Estimation Results**

Table 12 – Potential market for microfinance segments

Potential Market (A2F)	Ages 18-65
Microdeposits	60.9 million
Microinsurance (Health)	96.8 million
Microinsurance (Life)	96.8 million
Micropayments	82.1 million
Microcredit	40.9 million
Microenterprise credit	5.8 million

It is important to reiterate here that this is the market potential and not the actual demand. To reach to the market potential or close would require various enablers and catalysts. These estimates are based on use-cases, and actual penetration targets would require a thorough study of growth ambitions, penetration strategy at both the regulatory/government level and the practitioner level.





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Authored by Jaffar Jassim, Bilal Ghani, Amna Imtiaz, Amal Naeem Qureshi

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