Pakistan

June 2019

This study was conducted by Pakistan Microfinance Network (PMN) in collaboration with MIMOSA with funding from Department for International Development (DFID), PROPARCO and Pakistan Microfinance Investment Company (PMIC)

Pakistan

June 2019

MIMOSA Score 2

Pakistan has a MIMOSA saturation score of 2: a normal-to-moderately underserved level. The country's capacity to support higher levels of lending is substantial, with strong regulation, high market transparency, and generally mature institutions. Its credit bureaus are effectively capturing credit information, though without the capacity to combine information on a single platform, its usefulness is reduced (however that is changing). Growth is relatively high, though without posing concerns over sustainability in the medium term. Islamic finance has significant penetration levels and operates as a complementary offering to traditional credit, though its provision by MFPs is more limited. Overall, prospects for continuing to expand the credit component of financial inclusion are positive.

There are a total of 10.2 million active loans issued by regulated financial institutions in Pakistan, of which 6.9 million (68%) are issued by microfinance institutions and 3.3 million (32%) by commercial (non-microfinance) banks. Based on estimates of multiple borrowing levels observed in 7 countries around the world, we estimate that this represents 9.1 million unique borrowers, out of a total adult population of 138 million – a penetration rate of 6.6 borrowers per 100 adults. Given modeled capacity of 8.7 (see User Guide for details), this makes Pakistan a moderately underserved market.

Regulation is generally strong. While the overall strength of regulation is judged as moderate by EIU Microscope (ranking 21st out of 55 countries), regulations pertaining to client protection, and particularly those elements most relevant to sustainable growth (prevention of over-indebtedness, transparency, prohibitions against aggressive sales and collections, and an overall consumer rights framework) are positive. Particularly notable are regulations that set explicit limits on loan amounts, including aggregates across multiple loans, and also require credit bureau checks for microfinance lenders, including microfinance banks.

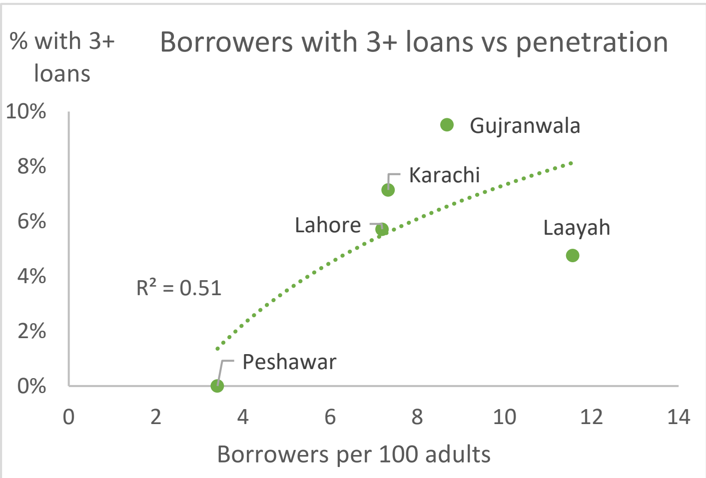
The use of credit bureaus – until recently, the eCIB (Credit Information Bureau) for banks (including microfinance banks) and Data Check Ltd. for non-bank microfinance institutions – is well reflected in client awareness and, presumably, repayment behavior. In the MIMOSA survey of potential customers, 74% of borrowers polled stated that if they didn't pay a loan to one lender, other lenders would know this from "checking the CNIC card" or

Category	Rating	Indicator	Value
Saturation (overall)	2	Loan penetration over capacity	-2.1%
Regulation for microfinance	● (grey)	Overall quality of regulation	55
	● (green)	Client protection (prevention of overindebtedness)	100
	● (green)	Client protection (transparency, sales, collections, consumer rights framework)	100
Microfinance Competition / Overheating	● (red)	Level of competition (HHI)	788
	-	% Borrowers with 3+ loans	n/a
	● (red)	Loan portfolio CAGR in value past 3 years	45%
	● (red)	Loan portfolio growth in value expected next 12 months	28%
Maturity of microfinance institutions*	● (grey)	% clients at MFPs <10y or >20y old	30% >20y old
	● (green)	Experienced crisis in past 15 years	yes
Transparency	● (green)	Composite transparency score	3.3/4
	● (green)	% leading MFPs with ratings in past 2 years	80%
Other risks	● (green)	FX exposure	none

"their complete history," and thus refuse to lend. Compared to MIMOSA surveys conducted elsewhere, this is lower than figures in countries with particularly strong credit bureaus (e.g. Peru, Kyrgyzstan and Morocco are all above 90%), but is closer to India, where 81% of borrowers are implicitly aware of credit bureaus.

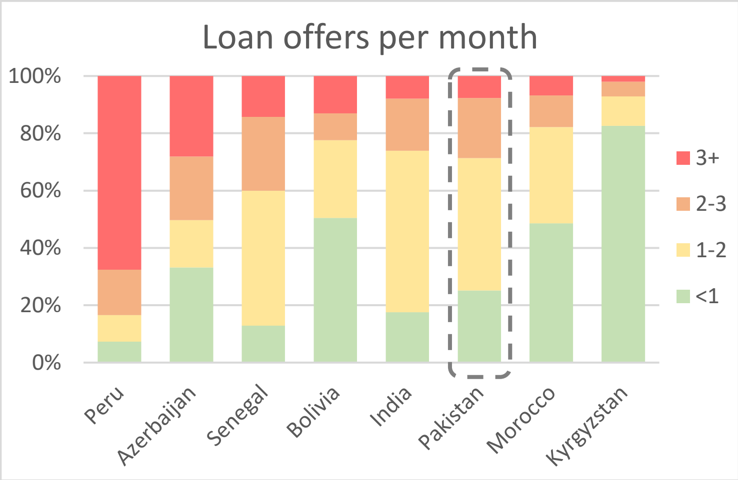
One important element that may be somewhat depressing the Pakistan figures relative to other countries with well-developed bureaus is the gap between banks and MFP reporting, at least at the time of the client survey conducted in February 2019. Indeed, the largest share of borrowers (24%) who responded that lenders would NOT know that they had defaulted on another loan were those who had borrowed from both commercial banks and MFPs. While that group is small, it's not insignificant, with 8% of borrowers in the field survey reporting having loans with a commercial bank and one with an NBMFC or MFB. Implicit credit bureau awareness among borrowers is a powerful signal of how well the credit reporting system functions, and this is evident in Pakistan.

Recently, SBP has granted license to Aequitas Information Services Limited and Data Check Ltd. to commence business as private sector credit bureaus under the Credit Bureau Act 2015, whereby all financial institutions are now required to seek membership of one or both credit bureaus. In addition, financial institutions under the supervision of the State Bank of Pakistan will also continue reporting to e-CIB. While this is likely to increase the level of overall credit bureau coverage, it does not eliminate the information gap between different types of financial institutions (especially commercial banks and MFPs), and its impact is thus difficult to predict. It remains the case that providing for unified or otherwise shared access across the entities that comprise the credit reporting system would further strengthen its effectiveness, especially as the market continues to develop and borrowing levels grow.



Borrowing across different lender types is just one segment of multiple borrowing in Pakistan. While we were unable to utilize data from either of the credit bureaus in the country for this report, the field survey provides some useful insight. Overall, 23% of borrowers in the field survey reported two or more active loans, while 6% had three or more. Furthermore, the pattern of multiple borrowing is consistent with one of the key observations from the multi-country MIMOSA database – areas with higher penetration also have higher multiple borrowing. However, the actual multiple borrowing figures, while elevated, are not especially noteworthy – the sample of interviewed individuals was not designed to be nationally representative and if those appear elevated, that itself does not warrant excessive concern. The implied multiple borrowing level based on estimates derived from penetration and multiple borrowing levels of other countries suggests that even the relatively higher-penetrated state of Punjab (estimated at 1.2 loans per borrower) features multiple borrowing levels below most of India (1.39 loans per borrower). However, analysis of credit bureau data is important to give more certainty to this estimate, which is why we left this indicator unrated.

Multiple borrowing is chiefly an outcome of competition. The microfinance market in Pakistan is relatively competitive in that there are no dominant MFPs. Indeed, no single organization claims more than 15% market share, and only four have above 10%. Moreover, that competition isn't equally distributed. The standard metric of competition – the Herfindahl-Hirschman Index (HHI: its inverted scale means that lower number implies higher competition and vice versa) – stands at 788 nationally. This puts it second only to India out of the 11 countries assessed by MIMOSA. However, very large countries like Pakistan are better assessed at more refined geographic levels, to better reflect the actual competition on the ground. Here, Punjab rates as most competitive, at 877, which is roughly comparable to Peru and some of the more competitive states in India (Maharashtra, Tamil Nadu). Competition is substantially lower in Sindh (1020 HHI), while others feature moderate to low competition.



However, a market that's structurally competitive doesn't necessarily mean that high levels of competition are experienced through aggressive sales on the ground. Potential clients in Pakistan reported a moderate level of sales and marketing. Only 8% of survey respondents reported receiving three or more loan offers per month. This places Pakistan in the middle of the pack, well below markets like Peru, but above markets like Kyrgyzstan and Morocco, with less aggressive emphasis on sales. Another sign of competition – poaching of staff from other MFPs – is likewise moderate, with most MFPs reporting that less than 25% of their staff turnover is due to poaching by competitors.

From the perspective of client protection and overindebtedness, the risks exist, but are modest. Significant struggles in making loan payments were cited by 8% of borrowers in our field surveys – almost identical to the figure in India (9%). And the most typical response by those facing loan payment difficulties is to borrow from friends or family (68%), with just 3% citing borrowing from another formal lender as a coping mechanism. Thus, there is little evidence of significant numbers of borrowers facing severe debt pressures that might push them into a debt spiral. Nevertheless, MFP perceptions of overindebtedness risk are somewhat greater, with 20% of MFP survey respondents citing multiple borrowing, reduced repayment capacity, or another sign of overindebtedness as one of the main obstacles against expanding credit in Pakistan over the next three years.

On the other side of repayment, collections practices did raise some concerns, with 13% of borrowers citing that lenders seeking to collect on loans use insulting language or otherwise "misbehave," and of those a large majority (69%) mentioned personally knowing someone who had experienced this. The most common collections practice was repeat visits/calls, especially for women borrowers (23%), whereas men were more likely cite lenders taking legal recourse as the most common strategy (27%). It's worth noting that most of the men citing legal recourse (81%) were MFB clients, perhaps reflecting different collections strategies of different lender types.

The microfinance sector in Pakistan is distinguished by relatively fast growth, with outreach in number of loans outstanding increasing by 23% CAGR and portfolio growth at 45% CAGR during 2015-18. Indeed, this is an unusually consistent growth rate, with fairly similar rates recorded in each of the past six years, and MFPs reporting an expected portfolio growth of 28% for 2019, according to the MIX Barometer survey. This growth exceeds the country's GDP growth[1] by 500%, which is not sustainable in the long term, but given the country's still modest credit penetration, this does not warrant significant concern at present.

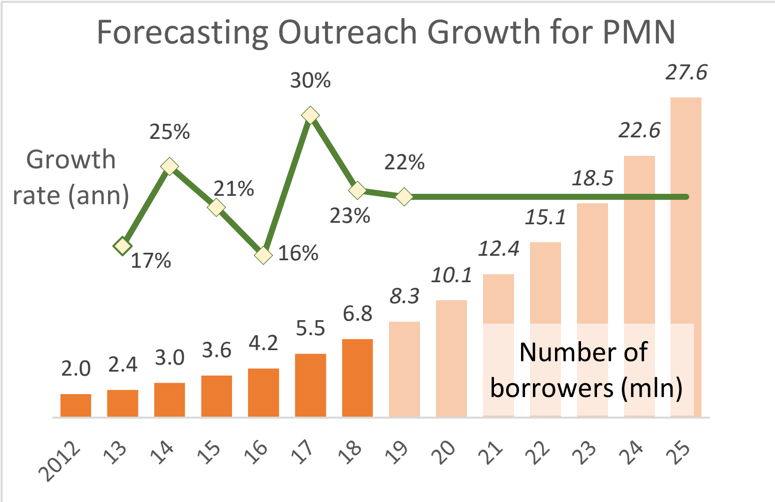
[1] Reported by IMF as 5.2% for 3yr CAGR in 2018, and 3.7% 3yr CAGR forecasted for 2021; both in constant local currency.

The Microfinance sector is also approaching meaningful maturity, with 30% of clients currently served by MFPs founded at least 20 years ago. With the added benefit of having experienced the 2008-09 repayment crisis, senior managers can be expected to be more attuned to the risks of unsustainable growth, which further mitigates concerns about the current pace of growth. The higher than typical staff turnover rate (17%), poses some concerns, though it nevertheless suggests that a large majority of staff have a long-term commitment to their MFP and its clients. Pre-crisis markets (such as Andhra Pradesh 2009-10) commonly displayed combined effects of turnover and new staff hiring at levels that resulted in majority of field staff having less than 1 year of experience. Pakistan is far from that. The country's commercial banking sector is also growing much more slowly than the microfinance sector, and its outreach in number of loans declined by nearly 1% during 2018. All this leaves positive opportunities for growth for many years to come (see Special Discussion below).

Finally, the Pakistan market is mostly transparent, with mandatory credit bureau reporting and verification, reporting to regulators and the Pakistan Microfinance Network, and significant data available market-wide. Most of the leading MFPs feature recent ratings and five have had their client protection practices validated and certified by the Smart Campaign. The primary downside is the lack of inter-connectivity between different credit bureaus discussed above, and the lack of access to meaningful credit bureau data that could substantially deepen market insights and analytics for all stakeholders – regulators, lenders, investors, and others. For example, this report had to rely on several estimates (for multiple borrowing and distribution of bank lending) that could have been answered more accurately by credit bureau data.

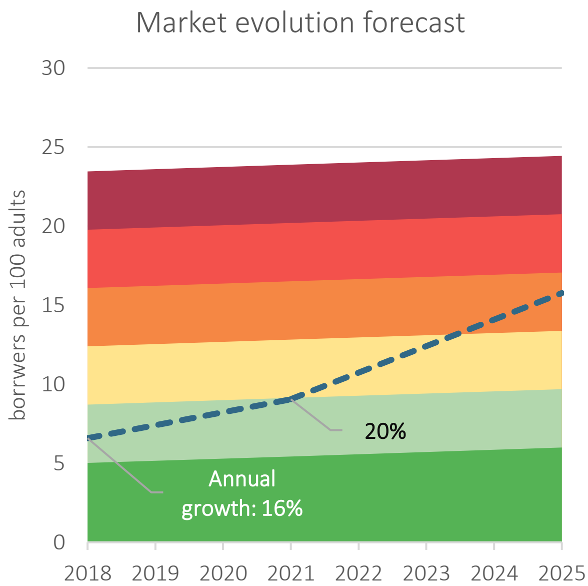
Special Discussion 1: Pakistan in 2025?

While Pakistan is currently at the normal / moderately underserved level, its current pace of growth is likely to put it at more saturated levels within the next 5-7 years, though this does not mean that this growth is unsustainable. Currently, MFPs are expecting to be adding customers at the rate of about 22% per year (portfolio growth of 45%), while outreach for commercial banks has been stagnant, with number of loans outstanding declining by almost 1% in 2018, even as portfolios grew by 23% during the same period. MFP growth has been very consistent for at least six years, and while that could change, there is no sign of that happening currently. With banks, stagnant outreach has been equally consistent (3.3 million loan accounts in 2018 vs. 3.3 million in 2013). Though surprising, this is in fact not especially unusual, as banks often focus less on growing the number of customers, and more on growing their portfolios by lending larger amounts to higher income groups and commercial organizations. Nevertheless, bank growth isn't likely to stay flat forever. The experience of mature markets (like Peru), and those getting there (India, Cambodia) is that as markets become more saturated, the line between MFPs and commercial banks becomes increasingly blurred, with MFPs venturing into banking, and banks moving more into MFP segments. Thus, outreach for banks is likely to start growing more in the future, raising the rate of growth overall. Based on these observations, our growth forecast assumes 16% total growth through 2021, and 20% until 2025.[2]



	2018	2021	2025
HDI	0.562	*0.573*	*0.588*
Population density per km^2	266.0	*281.0*	*300.4*
Credit Bureau Score	15.6	*20.0*	*26.0*
Loan capacity	8.7	*9.1*	*9.7*
Borrowers per adult	6.6	*9.0*	*15.8*
Microfinance loans per adult	5.0	*8.6*	*17.4*
MIMOSA Score	2	*2*	*4*
GDP per capita (current $)	1,527	*n/a*	*n/a*
CAGR GDP, past 3 years (constant LCU)	5.2%	*3.7%*	*n/a*

* forecasts: IMF for GDP, MIMOSA for others



[2] Growth through 2021: 22% growth for MFPs (MIX Barometer) and 0% for banks (16% combined); From 2021, assume growth for banks at 10%, with a combined MFP & bank growth of 20%.

According to this forecast, by 2025, the total number of borrowers (bank and MFP combined) would be 25 million (penetration of 15.8 borrowers per 100 adults) compared to 9.1 million in 2018 (penetration of 6.6). The result is that by 2025, Pakistan as a whole would receive a MIMOSA score of 4 (moderately saturated) compared to the score of 2 (moderately underserved) today.

Note also that multiple borrowing is almost certain to increase alongside this growth in outreach. The implied multiple borrowing level under this scenario would be expected to increase from approximately 1.1 loans/borrower in 2018 to approximately 1.3 loans/borrower in 2025, which is similar to India today, but well below levels in Bolivia and Peru. This increase in multiple borrowing would imply that the 25 million *borrowers* in 2025 would reflect an estimated 28 million MFP and 5 million bank *loans*, based on the current institutions' legal structures. That said, it should be expected that during this period, at least some of today's MFPs will become full commercial banks, either through merger or transformation. That, however, should not on its own affect the combined bank and MFP outreach rates, and by extension, have an impact on the MIMOSA saturation score.

Note that during this time, market capacity is also likely to increase, from 8.7% now to 9.7% in 2025. Some of that increase is from factors that follow a fairly predictable path – population growth and increase in HDI. But one key factor is the credit bureau score, which is relatively low in Pakistan, mainly due to the fact that the credit bureaus are split, and also their lack of full functionality – no reporting of payments to utilities and retailers, for example. Were the restructuring in the credit reporting system result in full integration and further increase in coverage, capacity could be further increased. For example, a credit bureau score of 100 – slightly above India and Cambodia (~80 each), but below Peru (137) – would raise capacity by nearly 2 points, to 11.5, meaning a MIMOSA score that is only barely 4, just over the cusp from 3 (normal saturation) in 2025.

Naturally, these changes would mean different things in different regions. Those at already high levels of penetration have less room to grow sustainably, while much of the country remains underserved (see MIMOSA Scores by Region, below). Unfortunately, the experience in many countries is that penetration typically continues to grow in areas where penetration is already high, alongside those that remain underserved. The result is that distribution continues to remain highly uneven, with some areas seeing extremely high saturation and serious risks of overindebtedness, while others may be at normal levels or possibly still underserved. It should come as no surprise that in the survey of 25 MFPs in Pakistan, exactly half of the 22 geographic growth areas mentioned were all in Punjab, despite it being the most penetrated part of the country. Bucking that trend requires special focus and probably regulatory guidance, so that growth is encouraged in underserved areas, but perhaps even discouraged in areas that have attained high levels of saturation. However, because designing such market incentives is a complex undertaking that can often result in unintended consequences, this should be approached with great care.

The microfinance and financial inclusion sector in Pakistan has many positive paths ahead. With proper improvements in its credit bureau system and continuing engagement at the regulatory level, there is every reason to think that Pakistan could see its number of borrowers increase three-fold by 2025, without saddling the sector with excessive risk of saturation or overindebtedness.

Special Discussion 2: Credit and religion

Calculating credit capacity with the MIMOSA methodology relies on gathering data and applying an entirely quantitative model to come up with the estimate. This approach is the most reliable way of generating benchmarks that allow meaningful comparisons across markets, and getting closer to answer the most fundamental question in credit markets: where in the credit cycle am I?

No model can capture everything, especially when it comes to such non-quantitative elements as religion and culture. However, sometimes cultural norms are so strong that they can be quantified. In countries with large Muslim populations, we try to assess the degree to which potential borrowers may refuse to participate in the credit market as a matter of religious observance. In Morocco, Jordan, and Kyrgyzstan we found significant population segments that do not borrow on religious or closely-related cultural grounds, leading us to add an adjustment factor to the MIMOSA model to reduce borrowing capacity by essentially excluding these populations from the ranks of potential customers – up to 30% in the case of Morocco.

Likewise, in Pakistan we paid close attention to the field survey results. But the survey results proved surprising: only a small minority of respondents cited either religious objections to (6%) or general dislike of (5%) credit as a reason for not borrowing. And nearly half of those who cited religious objections were in Peshawar. In all other areas, religious prohibition against interest was mentioned by just 1% of individuals polled.

To those who view religion as a significant social force in Pakistan, this may seem surprising. But perhaps it's a demonstration that views of religion and debt and how they interact are complicated. Indeed, the MIMOSA survey was not the first to come across this tendency in the country.[3] In light of these findings, we did not apply any adjustments to the output produced by our credit capacity model.

Given this context, it may appear surprising that Islamic finance is widely known and often welcomed by borrowers in Pakistan, especially given the challenges of delivering Islamic finance effectively in other Islamic countries studied by MIMOSA (Jordan and Morocco). Overall, 31% of respondents cited being familiar with Islamic banking, and of those, another 31% cited having used Islamic finance products. Most surprising is that use of Islamic products is correlated with use of traditional loans – clients of non-Islamic lenders were twice as likely to also use Islamic products as those who did not borrow from non-Islamic lenders.

However, Islamic finance appears to be unevenly distributed across the country, at least among the clientele served by MFPs. Nearly all Islamic finance clients interviewed in the field survey (87%) were either in Peshawar and Gujranwala, despite the fact that these two locations represented only 30% of the survey population. Interestingly, these clients did not limit their borrowing to Islamic lenders but were also frequent clients of non-Islamic MFPs and banks alike.

With the notable exception of Akhuwat, little of this Islamic lending is done by MFPs, just 1/3rd of which report doing any Islamic lending at all, and among them, Sharia-compliant loans average just 5% of total portfolio. However, there is interest among these MFPs to increase Islamic lending to an average of 21% of total portfolio within the next three years.

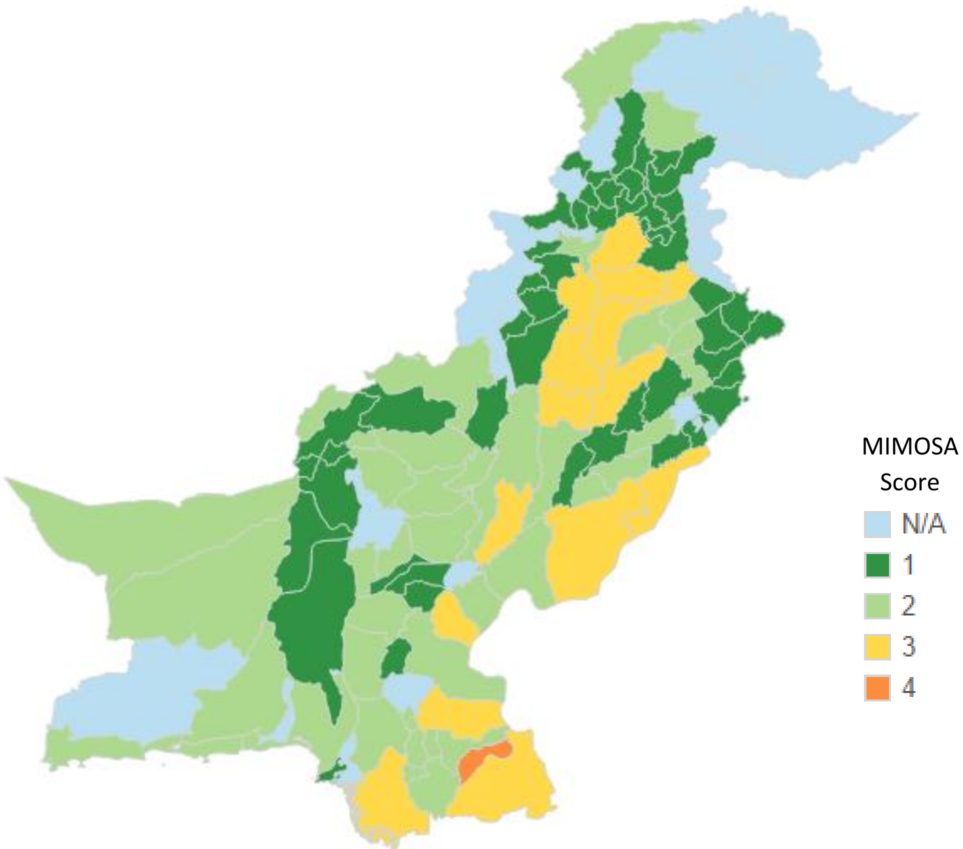
---

[3] Bringing Finance to Pakistan's Poor: Access to Finance for Small Enterprises and the Underserved (World Bank, 2009) found that "Religious objections to borrowing, while expressed by a third of the population, do not represent such a significant effect on borrowing as the aversion bias, and come out insignificant in regressions." The question pertaining to religious objection in that case was also explicitly prompted. The MIMOSA findings in Pakistan are based on the same formulation as the surveys used in Morocco and Kyrgyzstan (but not Jordan), and the question is unprompted and thus more likely to reflect actual borrowing behavior. The more recent Global Findex 2017 report also states that only 13% of financially excluded (not just borrowers) adults cite "religious reasons."

MIMOSA Scores by Region

At the regional level, Pakistan shows a diverse mix of penetration and saturation levels. The highest penetration areas (Jhelum and Laayah in Punjab) have MIMOSA scores of 3, meaning normal level. Meanwhile, the highest saturation level is in Umerkot, Sindh – the only district in the country to receive a MIMOSA score of 4. This is not because penetration is exceptionally high, but because the district has a very low HDI level and only modest population density, thus implying relatively low capacity. Meanwhile, the most underserved area is Khyber Pakhtunkwha – not because it has the lowest penetration (FATA and Balochistan are both lower) – but because its relatively high HDI and population density imply much higher capacity. Even Punjab – the state with the highest overall penetration level – still has large pockets of unmet demand, especially along the Eastern districts, from Gujrat in the north down to Multan in the south. Finally, all the large cities – Lahore, Karachi, Faisalabad – are still largely underserved, given their relatively high capacities.

State	Population (000s)	HDI	Population density (per km2)	MIMOSA Score	Borrowing capacity (%)	Borrowers per adult (%)	Penetration over capacity (%)
National	**211,780**	**0.562**	**266**	2	**8.7**	**6.6**	**-2.1**
Punjab	112,133	0.591	546	2	11.0	8.2	-2.8
Sindh	48,809	0.538	346	2	8.8	5.7	-3.0
Khyber Pakhtunkhwa	31,112	0.531	306	1	8.4	3.0	-5.4
Balochistan	12,582	0.412	36	2	4.4	1.7	-2.7
FATA	5,098	0.294	187	2	3.1	0.0	-3.1
Islamabad	2,045	0.674	>1200	1	16.8	8.0	-8.8



Punjab

District	Population (000s)	HDI	Population density (per km2)	MIMOSA Score	Borrowing capacity (%)	Borrowers per adult (%)	Penetration over capacity (%)
Lahore	11,341	0.675	>1200	1	16.8	7.2	-9.6
Faisalabad	8,026	0.620	>1200	1	15.8	7.8	-8.0
Rawalpindi	5,510	0.671	1,042	1	15.7	7.4	-8.3
Gujranwala	5,111	0.612	>1200	1	15.6	8.7	-6.9
Rahim Yar Khan	4,907	0.530	413	2	9.0	8.1	-0.9
Multan	4,837	0.583	>1200	1	15.1	8.2	-6.9
Muzaffargarh	4,405	0.506	534	2	9.4	6.2	-3.1
Sialkot	3,969	0.650	>1200	1	16.3	9.2	-7.1
Sargodha	3,775	0.589	645	2	11.6	9.9	-1.7
Bahawalpur	3,739	0.541	151	3	7.6	9.7	2.1
Sheikhupura	3,527	0.595	592	1	11.4	7.4	-4.0
Kasur	3,522	0.581	734	1	12.1	6.6	-5.5
Okara	3,098	0.576	708	1	11.8	7.2	-4.6
Bahawalnagar	3,039	0.532	342	3	8.6	9.3	0.7
Khanewal	2,978	0.572	685	1	11.6	5.6	-6.0
Vehari	2,953	0.547	677	2	11.0	8.5	-2.5
Dera Ghazi Khan	2,928	0.478	246	2	7.0	5.7	-1.3
Gujrat	2,809	0.627	880	1	13.9	10.0	-3.9
Jhang	2,796	0.562	317	3	9.0	9.4	0.3
Sahiwal	2,566	0.579	802	2	12.4	10.0	-2.4
Toba Tek Singh	2,232	0.609	686	1	12.3	7.7	-4.6
Rajanpur	2,034	0.461	165	3	6.2	7.3	1.1
Attock	1,920	0.622	280	3	9.9	10.0	0.1
Layyah	1,859	0.589	296	3	9.4	11.6	2.2
Pakpattan	1,859	0.550	682	1	11.1	7.2	-3.9
Narowal	1,743	0.600	746	1	12.5	8.0	-4.5
Lodhran	1,733	0.549	624	2	10.7	8.9	-1.8
Bhakkar	1,682	0.531	206	3	7.7	9.9	2.2
Mandi Bahauddin	1,624	0.582	608	2	11.3	8.0	-3.3
Mianwali	1,576	0.541	270	3	8.3	8.8	0.5
Chakwal	1,525	0.626	234	3	9.7	11.0	1.3
Chiniot	1,396	0.548	528	1	10.1	5.3	-4.8
Nankana Sahib	1,383	0.596	467	2	10.6	9.1	-1.6
Khushab	1,306	0.576	201	3	8.6	8.8	0.2
Jhelum	1,246	0.647	347	3	10.8	13.5	2.6
Hafizabad	1,179	0.576	498	2	10.4	8.2	-2.3

Sindh

District	Population (000s)	HDI	Population density (per km2)	MIMOSA Score	Borrowing capacity (%)	Borrowers per adult (%)	Penetration over capacity (%)
Karachi	11,809	0.661	>1200	1	16.5	7.3	-9.2
Korangi	2,504		>1200			0.0	
Khairpur	2,451	0.490	154	2	6.6	4.4	-2.2
Hyderabad	2,242	0.582	406	2	10.0	9.4	-0.6
Sanghar	2,097	0.452	196	3	6.2	6.4	0.2
Malir	2,048		903			0.2	
Badin	1,839	0.407	273	2	5.8	4.5	-1.3
Tharparkar	1,681	0.300	86	3	2.6	4.5	1.9
Ghotki	1,678	0.466	276	2	6.9	4.2	-2.7
Shaheed Benazir Abad	1,644		365			5.9	
Naushahro Firoze	1,643	0.553	558	1	10.4	5.9	-4.5
Dadu	1,580	0.534	83	2	7.0	5.6	-1.4
Larkana	1,554	0.526	209	2	7.7	7.6	0.0
Mirpur Khas	1,535	0.417	525	2	7.6	6.4	-1.2
Sukkur	1,517	0.549	604	3	10.6	11.7	1.1
Qambar Shahdadkot	1,367	0.432	244	2	6.1	4.1	-2.0
Shikarpur	1,255	0.469	500	1	8.4	3.0	-5.5
Kashmore	1,110	0.441	428	1	7.4	2.1	-5.4
Umerkot	1,094	0.355	195	4	4.3	9.0	4.6
Jacobabad	1,026	0.423	194	1	5.6	1.9	-3.7
Jamshoro	1,012	0.499	90	2	6.4	5.3	-1.1
Thatta	999	0.364	58	3	3.6	6.1	2.5
Tando Allahyar	853	0.474	165	2	6.4	5.9	-0.5
Sujawal	797	0.357	108	1	3.8	0.0	-3.8
Matiari	784	0.497	553	2	9.3	7.9	-1.4
Tando Muhammad Khan	690	0.387	299	2	5.6	4.2	-1.4

Khyber Pakhtunkhwa

District	Population (000s)	HDI	Population density (per km2)	MIMOSA Score	Borrowing capacity (%)	Borrowers per adult (%)	Penetration over capacity (%)
Peshawar	4,351	0.605	>1200	1	15.5	3.4	-12.1
Mardan	2,419	0.574	>1200	1	14.9	5.1	-9.8
Swat	2,354	0.526	441	1	9.1	2.4	-6.8
Dera Ismail Khan	1,658	0.455	226	1	6.4	2.2	-4.3
Swabi	1,656	0.546	1,073	1	13.6	2.3	-11.2
Charsadda	1,647	0.553	>1200	1	14.5	1.3	-13.2
Mansehra	1,586	0.559	346	1	9.2	2.0	-7.2
Nowshera	1,548	0.571	885	1	12.8	2.4	-10.4
Lower Dir	1,464	0.515	925	1	12.0	0.0	-12.0
Abbottabad	1,359	0.608	691	1	12.3	7.0	-5.3
Bannu	1,190	0.523	970	1	12.4	1.4	-11.0
Bajaur	1,115	0.412	864	1	9.7	1.5	-8.1
Haripur	1,022	0.591	593	1	11.3	4.4	-7.0
Kohat	1,013	0.544	398	2	9.2	7.4	-1.8
Khyber	1,006	0.531	391	1	8.9	1.4	-7.5
Upper Dir	965	0.386	261	2	5.3	1.9	-3.4
Buner	915	0.474	490	1	8.5	1.6	-6.9
Lakki Marwat	893	0.502	282	1	7.7	0.6	-7.1
Kohistan	800	0.302	107	2	2.7	0.0	-2.7
Shangla	772	0.422	487	1	7.5	0.7	-6.7
Malakand	734	0.567	771	1	12.0	2.3	-9.7
Karak	720	0.524	213	1	7.7	2.4	-5.2
South Waziristan	692		105			0.0	
Kurram	631		187			2.1	
North Waziristan	554		118			1.1	
Hangu	529	0.512	482	1	9.1	3.0	-6.2
Battagram	486	0.460	373	1	7.5	0.6	-6.9
Mohmand	476		207			1.0	
Chitral	456	0.558	31	2	7.1	4.2	-2.9
Tank	399	0.434	238	1	6.1	1.0	-5.1
Orakzai	259		169			2.5	
Torghar	175	0.308	352	1	4.4	0.0	-4.4

Balochistan

District	Population (000s)	HDI	Population density (per km2)	MIMOSA Score	Borrowing capacity (%)	Borrowers per adult (%)	Penetration over capacity (%)
Quetta	2,320	0.552	874	1	12.4	5.0	-7.4
Kech	927		41			1.4	
Khuzdar	818	0.407	23	1	4.2	0.3	-3.9
Killa Abdullah	772	0.307	234	2	3.7	0.3	-3.4
Pishin	751	0.447	96	1	5.4	0.3	-5.2
Lasbela	585	0.409	39	2	4.4	1.0	-3.4
Jafarabad	524	0.368	214	1	4.7	0.4	-4.3
Nasirabad	500	0.349	148	2	3.9	1.4	-2.5
Kalat	420	0.403	63	1	4.4	0.0	-4.4
Loralai	405	0.389	41	2	4.0	0.5	-3.5
Killa Saifullah	349	0.413	51	1	4.5	0.6	-4.0
Panjgur	322		19			1.5	
Dera Bugti	319	0.326	31	2	2.7	0.6	-2.1
Zhob	317	0.340	16	2	2.9	0.6	-2.3
Mastung	272	0.434	46	1	4.9	0.7	-4.2
Gwadar	269	0.425	21	2	4.5	3.6	-0.9
Kachhi	242	0.368	32	2	3.5	0.0	-3.5
Chagai	230	0.291	5	2	1.9	0.8	-1.1
Kohlu	218	0.323	29	2	2.7	0.0	-2.7
Sohbatpur	204		26			0.0	
Nushki	182	0.424	31	1	4.6	0.0	-4.6
Washuk	180	0.278	6	2	1.7	0.0	-1.7
Barkhan	175	0.306	50	2	2.5	0.0	-2.5
Musakhel	170	0.382	30	1	3.8	0.0	-3.8
Ziarat	164	0.343	110	2	3.6	0.0	-3.6
Kharan	159	0.337	18	2	2.9	1.1	-1.8
Sherani	156	0.340	56	2	3.1	0.0	-3.1
Jhal Magsi	152	0.275	42	2	1.8	0.0	-1.8
Sibi	138	0.424	18	2	4.5	3.1	-1.4
Awaran	124	0.269	4	2	1.5	0.0	-1.5
Lehri	120		12			0.0	
Harnai	99	0.276	24	2	1.7	1.6	-0.1

Data Appendix

Like all MIMOSA reports, this report aggregates an array of data from multiple sources, often applying transformations and estimates to ensure consistency and comparability within this report and across the full set of MIMOSA products. This is a brief summary of the data included in this report. Unless otherwise stated, all data is as of year-end 2018.

Credit penetration

Pakistan Microfinance Network: number of active borrowers and portfolio amount, including by state, district and MFP; latter is used to calculate HHI (see White Paper for details); historical portfolio growth; MFP founding date: and compute borrower distribution by age of MFP

State Bank of Pakistan: number and amount of outstanding loans (at the national level, as of June 2018 and year-end 2013); figures were reduced by the number of loans reported for Telenor by PMN, to avoid double-counting.

HBL, MCB, and Allied Bank: distribution of branches by district for each bank; together they represent 27% of all bank branches in Pakistan (based on data from SBP); these were combined and used to distribute bank loans by district, assigning equal number of loans per branch. Note that this likely results in some skewing of bank lending, with a preference for rural/remote branches that often serve fewer borrowers relative to city branches. However, the relatively smaller share of bank clients overall mitigates the effects of this skew.

Capacity

Pakistan Census 2017: population (national, state, district – updated to 2018 based on growth forecast from UNDP (medium path)), adult population (national only – applied uniformly to all states/districts), population density

Pakistan National Human Development Report 2017: HDI; due to different components used to compute HDI in this report, the figures have been re-indexed, so that the results can be reasonably compared to the HDI computed by the global UNDP report, while preserving the relative differences between districts in Pakistan

World Bank Doing Business Report 2019: compute the Credit Bureau Index (see MIMOSA White Paper for methodology)

Other indicators

Economist Intelligence Unit Microscope 2018: for ratings of regulation quality (see User Guide for details)
MIX Barometer Pakistan 2018 Dec: used to generate growth forecast (for number of borrowers)
IMF World Economic Outlook Apr 2019: for per capita GDP and economic growth forecasts

Project-generated indicators

MFP survey of 25 MFPs in Pakistan, conducted in Oct 2018; conducted in partnership with PMN
Field survey of 400 potential microfinance clients, implemented by PMN in Jan-Feb 2019 in Peshawar, Lahore, Karachi, Gujranwala and Laayah districts

Field Survey Methodology

For this project, quantitative interviews were conducted with a sample of 400 respondents. The sample was selected to test areas of different levels of saturation and competition, as well as urban and rural environments with the objective of providing deeper understanding of the nature of competition, client experiences and other aspects related to the study. As in other markets, both the site selection process and the questionnaire followed standard protocols, to enable meaningful cross-country comparisons. However, the survey itself is not geographically representative, and hence results should be interpreted accordingly.

The following methodology is proposed:

1. **Selection of cities:** Based on responses from the MFP survey shared with PMN members and secondary data collection on microfinance penetration and other demographics, cities were shortlisted in Punjab, Sindh and KP. The selected cities are as follows:
   - Layyah
   - Karachi
   - Lahore
   - Gujranwala
   - Peshawar

   Several of these areas were selected because they were identified as especially high competition/high penetration areas by MFPs and based on lending and demographic data.

2. **Area selection:**
   a. Snowballing technique was used where teams randomly selected an area within 10-15km radius of MFP branches to select respondents for the survey.

3. **Selection of respondents:**
   a. <u>Urban/rural:</u> The respondent split was 50/50 between urban areas and rural areas.
   b. <u>Gender:</u> Based on most recent data as per MicroWatch 2018, 53% of microfinance clients are female and 47% are male. The same gender split was used for the survey that were MFP clients. For non-clients, there was no gender split because women led businesses are mostly home-based and there is great difficulty in finding respective respondents for interviews. This was consistent with the methodology applied previously in other countries.
   c. <u>Clients/non-clients:</u> Clients were defined as those who had taken loans in the past one year from any MFP, bank, or other financial institution. Non-clients were defined as those who had *not* taken loans in the past one year from any financial institution.

Sample Characteristics – Quantitative Field Survey

		Gender		Clients/Non-Clients		Cities					Urban/Rural	
	Total	Males	Females	Clients	Non-Clients	Gujranwala	Karachi	Lahore	Layyah	Peshawar	Rural	Urban
Number of Respondents	400	186	214	280	120	60	120	100	60	60	200	200
Percentage of Respondents	100%	47%	54%	70%	30%	15%	30%	25%	15%	15%	50%	50%

Sample Characteristics – Mini-Focus Group Discussions (to test awareness of credit providers in the area)

	Number of FGDs				
Cities	Urban Males	Urban Females	Rural Males	Rural Females	Total
Layyah		1	1		2
Lahore	1			1	2
Gujranwala	1			1	2
Peshawar		1	1		2
Karachi		1	1		2
Total	2	3	3	2	10

User Guide

This is an abbreviated guide. For explanation of the methodology behind the penetration and capacity values, please consult the MIMOSA whitepaper.

The MIMOSA index consists of several measures. The primary score evaluates the degree to which the level of penetration exceeds estimated market capacity. The score levels and their interpretation is shown in the below table.

MIMOSA Score	Penetration over/ under capacity		
	Percentage points	Standard Deviations	Market status
6	>11.1%	3+	Saturated
5	7.4-11.1%	2 to 3	
4	3.7-7.4%	1 to 2	
3	0-3.7%	0 to 1	Normal
2	-3.7 - 0%	-1 to 0	
1	< -3.7%	< -1	Underserved

In addition to the score, we include the component metrics underlying the capacity and penetration calculations:

Human Development Index (HDI): developed by UNDP to assess the level of development, comprising GNI per capita, life expectancy, and education metrics. The scale ranges from 0-1.

Population density per km^2: standard measure retrieved from country statistical bureaus.

Credit Bureau Score: derived from the Getting Credit measures in the World Bank Doing Business report. We include the level of coverage, and amount of information (both repayment history and debt outstanding) provided. The scale ranges from 0-400.

Borrowing Capacity: % of adults expected to be active borrowers, based on the MIMOSA model.

Borrowers per adult: derived from multiple sources, including the World Bank Findex survey, central bank reports, credit bureaus, and MIMOSA field surveys.

Microfinance borrowers (% of loans): number of active loans of microfinance institutions. Usually defined either by institutional registration with the regulator or membership in the microfinance association. Multiple loans held with the same institution are counted once.

Credit card borrowers (% of adults): number of adults with an outstanding credit card balance. Figure from Global Findex.

Credit card score: level of penetration vs. capacity. Graded on a three-point scale, indicating a market whose credit card demand is under-served, appropriately served, or over-saturated.

GDP 3-year CAGR (current $): three year cumulative growth rate of GDP. Figure from IMF WEO.

GDP per capita (constant LCU): figure from IMF WEO.

In addition, we include a list of indicators that serve as additional risks or mitigants that in aggregate may increase or reduce the country's ability to manage increased levels of penetration:

Category	Indicator	Indicator	Mitigant	Neutral	Risk
Regulation	Overall quality of regulation	Overall Microscope score (0-100)	>=65	50-65	< 50
	Consumer protection (overindebtedness)	Microscope score 3.2	>=90	60-90	< 60
	Consumer protection (transparency, sales, collections, consumer rights framework)	Avg of Microscope scores 4.1.1; 4.1.2; 4.1.3b	>=90	60-90	< 60
Competition / overheating	Level of competition	Herfindahl-Hirschman Index	HHI > 3,000	1,500 < HHI < 3,000	HHI <1,500
	Multiple borrowing	% borrowers with 3+ loans	<5%	5-15%	>15%
	Prior growth	Loan portfolio 3-year CAGR	<2x GDP growth	2-3x GDP growth	>= 3x GDP growth
	Future growth	Loan portfolio 12-mth growth expectations	<2x GDP growth forecast	2-3x GDP growth forecast	>= 3x GDP growth forecast
Maturity of microfinance institutions	Age of FIs	% clients of MFIs >20y or <10y old	> 65% of the borrowers are clients of MFIs >20 years old	Other	>65% of the borrowers clients of MFIs < 10 years old
	Prior crisis experience	Date of previous crisis	Market experienced crisis in past 15 years	no crisis experience	
Transparency	Composite score	See Transparency worksheet	>=3		<1.5
	Ratings	% leading MFIs rated in past 2 years	>=75	50-75	<50
Other risks	FX exposure	% of loans in foreign currency	<10	10-25	>=25
	Interest rate level	Average Full APR, weighed by number of borrowers	<30%	30-60%	>60%