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“Naya” Pakistan: Providing affordable housing to low-income households

Kashif Malik
Muhammad Meki
Simon Quinn
Farah Said

IGC

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1. Study Motivation

Pakistan, like many other countries in South Asia, has been facing a huge shortage of housing, which particularly affects the poorest and most financially underserved segments of society. Pakistan is bereft of potential positive externalities created by 'home ownership' such as improved welfare, better human capital development, and reduced communal conflicts (Franklin et al., 2019; Uppal, 2021). Pakistan currently faces a shortage of 10 million housing units according to a review by the State Bank of Pakistan (SBP) in 2018, a gap which has been growing by 340,000 every year, and in a setting where the financial sector only caters to 2% of all housing transactions (the lowest ratio in the region). The formal financial sector has not been able to provide adequate affordable housing products, which is unsurprising since most of those exposed to this problem are not even catered to by formal banks. The combined volume of outstanding housing finance from banks and the House Building Finance Corporation Limited (HBFCL) was Rs. 92.4 billion as of December 2018, which includes financing the staff housing loans of financial institutions, equivalent to only 0.5% of GDP. This "mortgage depth" ratio is low in comparison not only to advanced economies but also to regional neighbors India and Bangladesh.

Both supply and demand side challenges have characterised the housing finance market. Key supply-side issues include a lack of an adequate foreclosure mechanism, the uncertainty of title deeds, the absence of innovative products, and the risk of a maturity mismatch due to the unavailability of longer-term funding. Key issues related to the demand side include escalating property prices and a lack of adequate financing products. Existing housing finance products are not appropriate for the poorest and often unbanked members of society, who require innovative affordable housing products in areas that also offer good transport facilities (Glaeser et al., 2008) and valuable social networks (Munshi & Rosenzweig, 2016). Affordable housing finance for low-income families remains a difficult challenge for both public and private providers (Said, 2016; Rashid, 2019).

In 2018, the Government of Pakistan set an ambitious goal to provide five million housing units at a standard rate. Formally established in 2020 through an Act of Parliament, the Naya Pakistan Housing & Development Authority (NAPHDA) set out to achieve this target by encouraging public-private partnerships and standardized designs to cut costs, cut approval times and work with private banks and microfinance providers to provide subsidized housing loans. One such entity, Akhuwat which is Pakistan's largest interest-free, microfinance provider - is implementing the Prime Minister's Low-Cost Housing Scheme under this programme. Low-income households are provided interest-free financing in the region

of Rs. 500,000 for 13 months to up to 5 years with a fixed rental payment of approx. PKR 10,000 per month, for the construction of a new house; or the renovation and upgradation of an existing house. Akhuwat provides loans to individuals who already own a piece of land or a housing unit. Since the start of the program, the NAPDHA has acknowledged that an estimated 18,499 housing units have received funding or are approved for loans from Akhuwat (Niazi & Omer, 2022), with an estimated PKR 8 billion of funding provided by NAPHDA (Abbasi, 2022).

The aim of this exploratory study is to understand the dynamics of contract formation and implementation of the financing product. On the supply side, our collaborator has raised questions regarding the contract design, which includes contract duration, cost estimations as well as the frequency of repayment. It also incorporates estimating how stringent the selection criteria for a loan should be, as well as putting in place adequate scrutiny and monitoring measures to ensure better repayment and mechanisms to deal with default risk. On the demand side, we seek to uncover the preferences of clients, their repayment capacity, practical aspects of housing construction and hiccups therein, as well as the legal aspects of ownership, and title transfers, especially for the poor.

We conducted a mixed methods research study to understand the low-income housing finance market. First, we conducted baseline interviews with 308 applicants identified by Akhuwat as being eligible for the housing loan in October 2021 to understand client perception of the practicalities involved in construction and different contractual features. Six months later, in April 2022, we were able to conduct follow-up interviews with 256 applicants, who form the main sample for analysis. Less than half (45%) of the sample had received housing loans at the time of the endline. We also conducted semi-structured interviews with 30 loan officers deputized with implementing the product to understand their perception of the optimal delivery mechanism for this product (which clearly has big policy implications for the Pakistani government) and what risks they perceive vis-a-vis timely repayment. Finally, we conducted semi-structured interviews with senior management at Akhuwat, other microfinance and commercial current and potential providers, to understand the concerns and practical applications to improve the efficiency of the program, and the concerns regarding its sustainability.

We find that in a sample of 256 loan applicants, an overwhelming majority lived in 5 marla (1360 sq ft) houses and required funds for the construction of a new house. Borrower concerns about the rising costs of construction and insufficient funds were persistently high over the duration of the study, leading to borrower dissatisfaction with the loan size and potentially constrained borrower resources. In line with

client concerns, loan officers also recommend increasing the size of the loan and providing greater flexibility in both the type of loans and the timing of installments. Loan officers also recommend verifying land deeds and securing multiple guarantors to minimize contract risks. Senior management highlighted important considerations about the optimal design of the product, e.g., to offer the smaller but more frequent loans; and the need for a functional, centralized mortgage and deed verification facility to reduce contract and default risks.

In the remaining report, we define the loan product (section 2) and the client sample (section 3). Section 4 highlights demand and borrower concerns captured in the client surveys, section 5 summarizes insights from the loan officer and senior management interviews, and section 6 concludes and presents policy recommendations.

2. The Housing Loan Product

Akhuwat provides housing loans to applicants with a valid CNIC, a clear credit history, and a monthly personal income of not more than PKR 60,000. To be eligible, an applicant must already possess the dead or allotment letter to prove ownership over land or a housing unit of not more than 1,360 sq feet (5 *Marla*). At the outset, Akhuwat claims to give preferences to widows and applicants of a household income of less than PKR 40,000. At the time of the start of the study, Akhuwat had received and disbursed PKR 3 billion under PM's Low Income Housing Finance Scheme, with another PKR 2 billion anticipated to be released by the Government of Pakistan in the coming months. However, the release of remaining funds has been slow and delayed due to political and economic instability this past year. Though Akhuwat had planned to provide loans to 200 out of the 308 applicants identified at baseline in the next 6 months, at the time of endline surveys, loans had been disbursed to 114 individuals.

Confounding the problem of low access to housing finance for the poor across the world is the fact that many countries with large Muslim populations have social injunctions against interest-based borrowing (El-Gamal et al., 2014). Muslim poor have shown significant rates of rejection of traditional microloans, coinciding with large and sometimes increasing incidences of poverty and financial exclusions among Muslim populations. Obaidullah and Khan (2008) estimate that in the six countries with the largest Muslim populations, the number of people living on less than $2 per day far exceeds half a billion; the authors also discuss survey results that show Muslims to be highly excluded from access to banking products and services, with exclusion rates reaching as high as 88% in Pakistan. CGAP (2008, 2009) surveys suggest that, for Muslims with access to microloans, up to 40% reject interest-bearing loans on religious grounds.

Akhuwat, on the other hand, provides a Diminishing Musharakah product based on Islamic principles, which involves shared ownership of an asset (in this case, a house), rental payments based on the proportionate ownership shares each month and capped at PKR 10,000 per month, and declining ownership shares over time. The default procedure is also designed to reflect the true risk sharing and the shared-ownership nature of the contract, in contrast to conventional collateralized loan contracts that require full repayment of the initial financing amount and may incentivise "fire sales" of assets, which are not in the interest of clients.

3. Study Sample and Context

The study sample is located in peri-urban and urban areas of Lahore, Kasur, Sheikhupura and Faisalabad in Punjab. The study sample consists of eligible applicants who met the criteria outlined above. On average, applicants have a monthly household income of PKR 57,000. A fifth of the sample owns a business (Table 1, panel a). The average applicant is 40-year-old, male, married and with 7 years of education. Applicants typically live in a 3-5 *marla* house with 5 other household members (Table 1, panel b).[1]

Though, at the outset, Akhuwat outlined a priority to provide loans to individuals with household incomes below PKR 60,000 per month, nearly half of the borrowers (71 applicants) reported household incomes between PKR 60,000 - 145,000 in individual surveys conducted by our team of enumerators. While we find no significant differences between households that receive and do not receive a loan, individuals who received the loan have significantly lower levels of household savings (by PKR 71,000, see Table 1, panel a).

Overall, the two groups were balanced on various socio-economic indicators like household income and occupation profile, household assets, family size and composition, the status of current lodging, and the intended purpose of the Akhuwat loan.

4. Borrower experience and concerns

4.1 Quality of current housing

Next, we summarize the living conditions of clients, which can drive the demand for loans. In addition, living conditions are also indirectly linked with their ability to deal with exogenous shocks, financial muscle, and risks involved.

[1] 1 marla = 272 sq ft; 5 marlas = 1360 sq ft

Table 1 - Client summary statistics at baseline

	(1)	(2)	(3)
Loan status:	Did not receive loan	Received loan	Difference
Panel (a) Household characteristics:			
Household total monthly income	57,207.88	57,320.25	112.37
	(24134.97)	(21983.09)	(2917.79)
Household wage income	34,658.82	34,529.41	-129.41
	(12022.33)	(12157.47)	(2394.19)
Has a business	0.20	0.21	0.01
	(0.40)	(0.41)	(0.05)
Business profits	33,689.66	44,583.33	10,893.68
	(23009.47)	(26477.09)	(6797.74)
HH loans	70.42	43.86	-26.56
	(591.28)	(468.29)	(67.91)
HH savings	209,621.44	138,669.38	-70952.08**
	(309508.59)	(219963.14)	(34371.00)
HH size	6.54	6.04	-0.51*
	(2.59)	(2.15)	(0.30)
Current Lodging size (*marla*)	4.75	4.19	-0.55**
	(2.44)	(1.91)	(0.28)
Panel (b): Borrower characteristics			
Age	41.25	39.48	-1.76
	(10.29)	(8.66)	(1.21)
Married	0.91	0.92	0.01
	(0.29)	(0.27)	(0.04)
Male	0.90	0.91	0.01
	(0.30)	(0.28)	(0.04)
Education level	6.66	7.05	0.39
	(5.26)	(5.26)	(0.66)
Panel (c): Housing loan use			
New construct	0.80	0.83	0.03
	(0.40)	(0.37)	(0.05)
Addition	0.12	0.11	-0.01
	(0.33)	(0.32)	(0.04)

	(1)	(2)	(3)
Renovation	0.08	0.05	-0.02
	(0.27)	(0.22)	(0.03)
Observations	142	114	256

Note: The sample summarized her consists of the 256 applicants who were interviewed at both baseline and endline. Column (1) provides mean characteristics of applicants who did not receive the loan by endline, Column (2) does the same for individuals who had received loan funds. Column (3) provides the difference (2) - (1). *** p < 0.01, ** p<0.05, * p<0.1.

Baseline data reveals that most applicants currently live in *pakka* housing structures, with roofs of concrete or corrugated iron sheet. Nearly 80% of the structures are single-storey houses. Two thirds (60%) of the homes have brick-cemented walls, and a little under half (49 %) of floors were cemented. As mentioned before, respondents live in small, 3 - 5 Marla homes on average, with an average household of 6 utilizing only one or two rooms used for sleeping (53% and 35%, respectively). A little more than half of the sample (54%) of the respondents live in a house owned by the respondent or a member of the household, with 40% living in rented homes.

All households reported having access to safe drinking water, via a protected well or tap inside the house. However, 87 % of households have one shared toilet for 5-6 household members. A third of the households (30%) live in areas that have no streetlights, indicating low levels of safety and security at nightime. Nearly 10% of the sample reported burglary or theft in the neighborhood last year. Violent crime is rare, with only two individuals reporting it to have incurred in the past year.

Community networks appear to be strong, with 91% of the sample reporting having met their neighbors in a social gathering at least once a year. A fifth say they meet their neighbors in a communal event at least once a month. Nearly half of the sample (45%) say they turn to their neighbors for advice at least once a month and 42% of the respondents report that their neighbors check in out of concern and care at least once a week. These findings suggest respondents currently live in close-knitted communities with informal safety nets.

4.2 The demand for loans

We next explore self-reported, planned use of the funds. We do this in three key ways: first, to understand the general demand for funds, we ask respondents to report how they would use a hypothetical small (PKR 10,000) loan. Results are shown in Figures 1 and 2 for baseline and endline, respectively.

At baseline (Figure 1), the majority of respondents (32%) report using additional funds for repair and renovations of their homes. This is followed by using a loan for buying a durable asset for the household (19%), or just holding it as cash (15%). Six months later (Figure 2), with worsening economic situations, the focus had shifted to 43% wanting to hold the loan as cash as a buffer against increasing expenses, with only 21% and 11% of the respondents wanting to use a loan for repairing the house or buying a durable asset, respectively. A reasonable number of respondents wanted the loan to be spent on business expenses in both rounds - 15% at baseline and 11% at the endline. A negligible proportion of the sample reported wanting to use the funds on food expenses, down from 10% at baseline to only 0.4% at endline. Miscellaneous uses were relatively less frequently mentioned, such as spending on events, school, clothing, or medical, or repaying other loans.

Second, we also ask at baseline, if respondents currently have a loan from Akhuwat, and the use they have made of loan funds. Results are summarized in Figure 3. Of the 127 individuals who had an outstanding loan, 56% said they are using the loan for house repairs or upgradation, 30% reported using it in business, and 9% used it to purchase a durable asset for the household.

Finally, we note that 82% of the sample applied for a loan to construct a new house, while 12% and 6% required a loan for adding rooms or renovating the house, respectively (Table 1, panel c). This confirms the generally high demand for funds for household construction, followed by repair and upgradation needs among the applicants at baseline.

4.3 Borrower construction plans and housing loan experience

At the time of the baseline, we asked respondents about the expected duration and costs of their renovation/construction plans. Of the individuals who had specified they would be using the loans for the construction of a new house, 40% owned 3 marlas or less, 57% owned land larger than 5 marlas but less than 5 marlas. 50% of the respondents specified they would like to build a house with at least 2 bedrooms (or more), which represents an increase over the home they currently lived in.

On average, respondents report an average cost of PKR 854, 800 for the new house, to be built in 6 months or less. The average costs of renovation projects are similar - PKR 811,111, though respondents expect them to be completed within 1-3 months. Finally, extensions of existing homes are expected to be significantly less costly, at an average cost of PKR 60,4210 and completion time of 1 - 5 months.

Figure 1 - Self-reported use of a hypothetical PKR 10,000 loan from Akhuwat at baseline (Oct 2021).

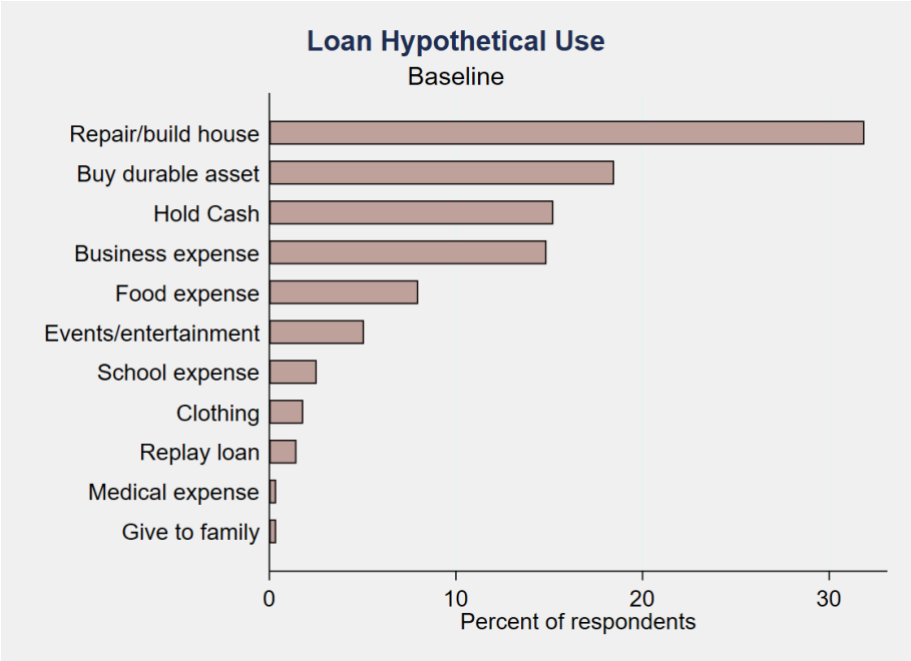


Figure 2 - Self-reported use of a hypothetical PKR 10,000 loan from Akhuwat at endline (Apr 2022).

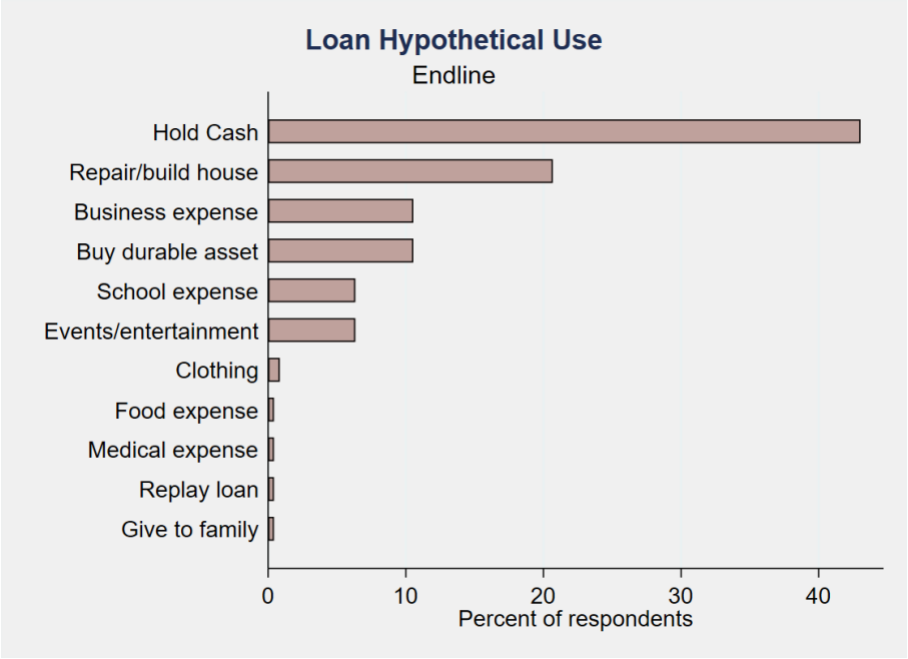
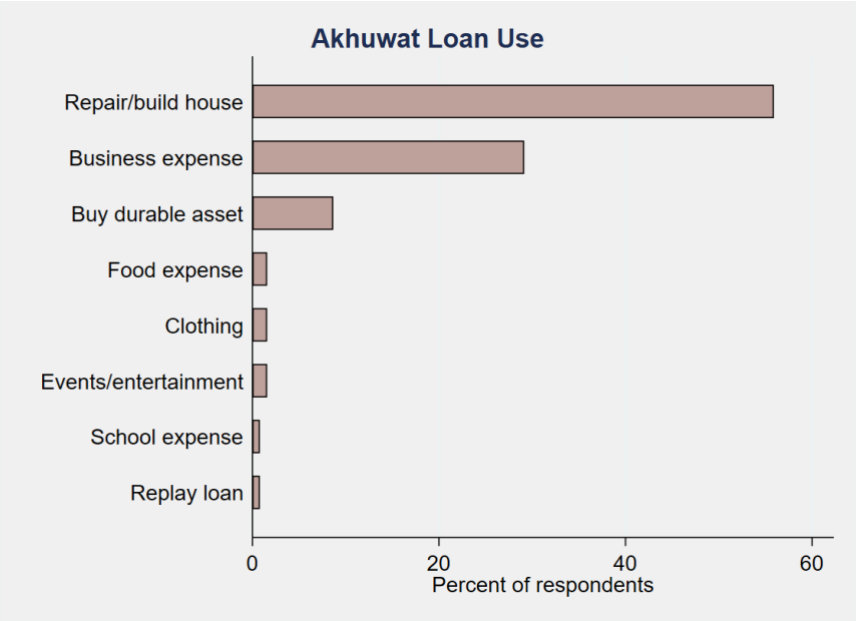


Figure 3 - Self-reported use of an existing loan from Akhuwat at baseline (Oct 2021).



At endline, these costs and durations had been revised upwards among the sample of respondents who had received a loan for new constructions: to PKR 1,235,895 and construction completed within 8 months. Expectations of costs and duration were largely unchanged for extensions and renovation projects. The latter may have been because respondents revised planned renovation plans to remain within a desired budget - which is harder to do when constructing a new house.

In line with the increase in costs expected by the borrowers, the 114 applicants who had received the loan[2] reported moderate levels of satisfaction with the loan size but low satisfaction levels with the loan duration and installment size at endline: 70 % were satisfied with the size of the loan, while only 52% each were satisfied with the duration of the loan and the size of the monthly installments.

Figures 4 and 5 summarize the top concerns expressed by the borrowers regarding the completion of their construction plans in the next 6 and 12 months, respectively. With rising material costs in the construction sector (Ahmed, 2021), it is no surprise that the top most short-term concern, stated by almost 41 % of the borrowers at baseline, was about the increasing costs of materials followed by lack of funds (40%) (Figure

[2] Of which 3 were individuals that Akhuwat had initially decided to not provide the loan (at baseline). Of those who had not received these loans, 45% expected it within the month, while another 40% expected it within the next three months.

4). A related factor that worried 15% of the borrowers was the inability to find a contractor that could complete the construction task within a reasonable budget that they could afford.

Figure 4 - Concerns and obstacles in construction in the next 6 months (Mar 2021).

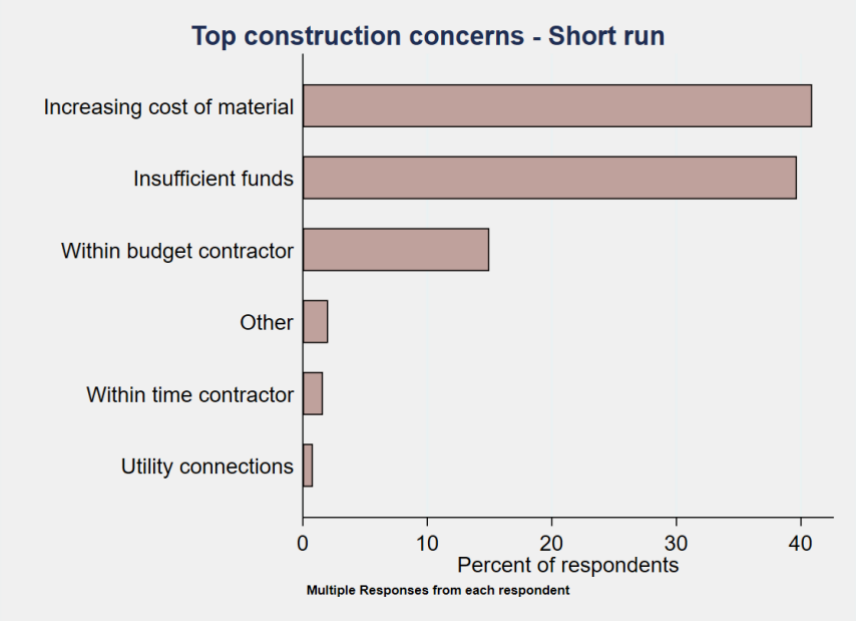
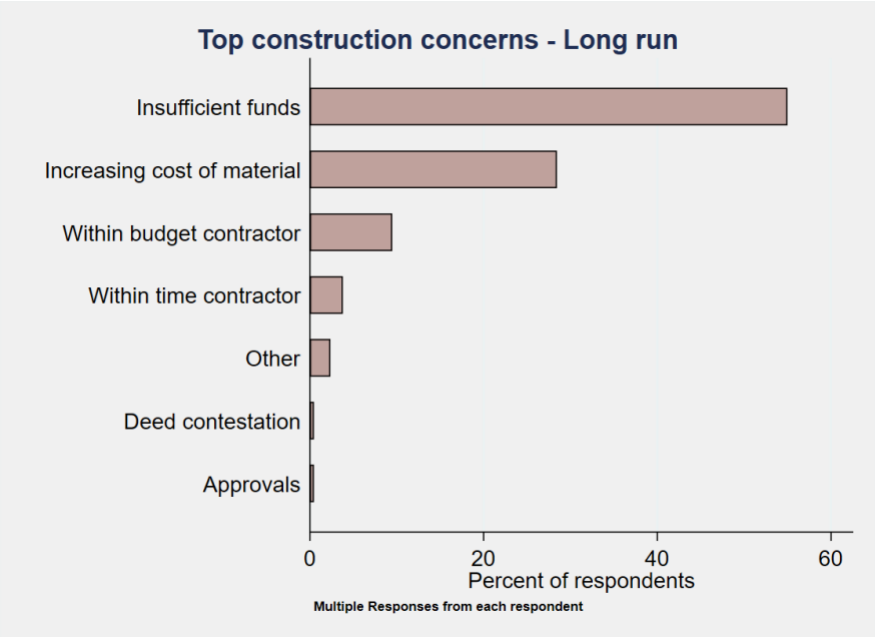


Figure 5 - Concerns and obstacles in construction after 12 months (Apr 2022).



A few respondents expressed concerns about finishing on time (1.6%) and getting utility connections (0.8%) A relatively higher proportion (4%) were concerned about not finishing the construction in time in the longer run. However, the two main concerns remained to be a lack of funds (55%) and increasing costs of materials (28%). The quality of the contractor remained a significant concern, with 10% of the sample still expressing longer run concerns about not being able to find a contractor who would finish the construction project within budget. The potential bottlenecks in the construction process mentioned above by the clients imply that they expect completion to be delayed by 2-3 months.

4.4 Change in household and business resources of recipients after the loan

Though we do not have random variation in the borrower status, we can utilize the panel structure of our data to conduct an exploratory investigation of the potential impact of the loan on borrower resources using a difference-in-difference estimation. With many borrowers expressing concerns about increasing costs and insufficient funds, we test if borrower households are more likely to report an increase in household expenses, a reduction in savings and business profits, or a change in cash in hand. Results are provided in Table 2.

Table 2 - Change in household and business outcomes over time.

	(1)	(2)	(3)	(4)
	HH expense	HH saving	Business Profits	Business Employees
Diff-in-diff	232.2	-6256.6	-10109.5	-1.555*
	(2330.9)	(49317.5)	(9163.8)	(0.788)
Observations	512	512	106	106

Note: Column 1 reports results for total monthly household expenses, column 2 for current household savings. 20% of the sample owns a business – columns 3 and 4 report the profits and number of employees in the business. Column 5 reports the total cash balance held at home. Standard errors in parentheses *$p < .10$, **$p < .05$, *** $p < .01$.

We find that household expenses increase, and savings decrease among the sub-sample of applicants who receive the loan, but these changes are both small and statistically insignificant (Table 2, columns 1 and 2). Approximately 20% of the sample runs a business. Business profits of applicants who have received

housing finance decreases, but the effect is imprecisely estimated and insignificant (Table 2, column 3). On the other hand, there is a significant decrease (equivalent to 0.73 standard deviation of sample mean) in the number of employees of borrowers' businesses, which provides us with suggestive evidence of an initial decrease in borrower resources, in line with the concerns about increasing costs and lack of funds reported in survey data.

5. Provider experience and concerns

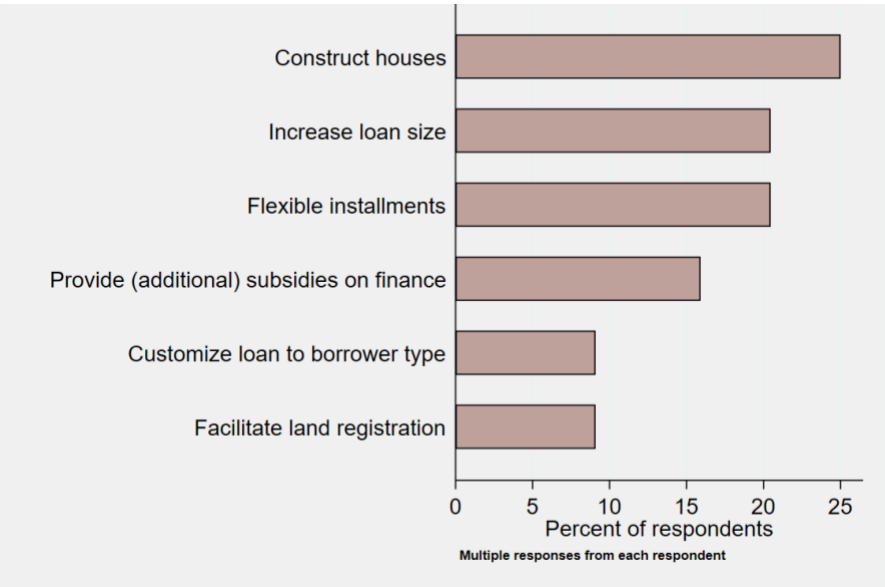
To develop a holistic understanding of the norms and challenges in the microfinance sector as well as an optimal delivery mechanism for house loans, we now turn towards insights from semi-structured interviews conducted with loan officers and senior management at three organizations. One of these organizations is Akhuwat, which is currently offering a housing loan to low income households. We interviewed the senior officers at another microfinance institution that is about to launch its first housing loan product. Finally, we interviewed the head of housing finance at a major commercial bank that is currently offering housing loans to middle income households.

5.1 Insights from loan officers

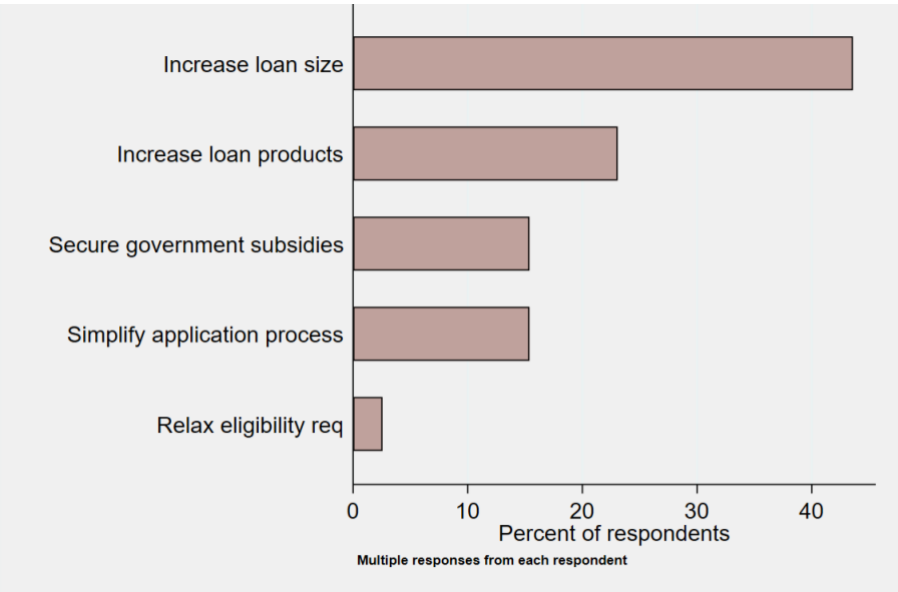
We conducted semi-structured interviews with 30 loan officers working in the study sample. Our purpose was to give the front-line workers in the housing microfinance industry a voice; listen to and understand their concerns to form a nuanced understanding of the ground realities involved in loan repayment and overall monitoring/managing of various risks. Loan officers report nearly 50% of the loans in their housing finance portfolios are being used for the construction of new homes - a lower proportion than the use that borrowers had reported at baseline, while the remaining portfolio is equally split between renovation and extension loans. The median loan size is PKR 500,000 to be paid back in 5 years. Loan officers report a typical customer has at least one other loan (than the housing loan) worth PKR 50,000 that is in the process of being paid back.

In line with the borrower surveys, loan officers also express concern about the size and duration of the loan. Out of 30 loan officers, all felt that the loan installment size is manageable but 12 reported concerns about the loan amount being insufficient for the borrower's needs. Very much in line with client reports, the three most common obstacles cited by loan officers that their clients may face are increasing construction costs (30%), lack of funds (28%), and expensive contractors (10%). A fifth of the loan officers reported borrowers are likely to default or delay paying installments on time as a result. All loan officers report allowing some flexibility on the exact date of installment repayment in such cases.

Figure 6 - Loan officer recommendations to the government and microfinance providers



Panel a: Recommendations to the government



Panel b: Recommendations to MFIs

Note: Respondents were allowed to give multiple responses. Bars provide the average proportion that a particular response was provided.

We asked loan officers two open-ended questions about recommendations to the government for re-designing the program in the future, and to other microfinance providers for offering housing products to low-income households. Their responses are summarized in Figure 6, panel a and b, respectively. The most common recommendation is for the government to construct houses that the low-income households can purchase, followed closely by increasing the recommended size of loans, providing flexibility in installments, and continuing with subsidizing of housing loans (Figure 6, panel a). To microfinance loan institutions (Figure 7), they make similar recommendations of increasing the loan size (44%), providing a greater variety of loan products that meet different client needs and income streams (23%), and securing government assistance in providing subsidized loans that low-income households can afford (15%). They also recommended simplifying the application process, which they felt was complicated for borrowers to understand (15%).

Loan officers also strongly recommended a strong process of land deeds verification and having one or two guarantors to manage contract and credit risks. Having guarantors are an effective tool to deal with credit risk, specified by 60 % of the loan officers. A small proportion (10 %) reported regularly meeting with the client to ensure installments are paid back on time.

5.2 Insights from senior management

We conducted semi-structured interviews with senior management at Akhuwat to corroborate the findings of clients' experience, as well as insights from the loan officer interviews. In addition, we also conduct interviews with senior officials at another large MFI which has plans to offer subsidized housing finance to the poor and has been contemplating the optimal design of sustainable housing product[3]; and a deposit taking commercial bank which is currently offering housing products to middle income households (i.e., households that are economically better off than a typical low-income, Akhuwat borrower).[4] It is worth noting that none of our respondents foresee the private sector will be able offer housing finance to low-income households without government support in the near future, but they

[3] At the time of submission of this report, this provider was considering launching a new low cost, housing finance loan product in the next two months.

[4] Financing rates for commercial banks and middle- to high-income households are higher. Similarly, loan tenure and principal amounts are likewise larger (see details here: https://www.sbp.org.pk/MPMG/index.html). The installment size, for instance, is 3 - 6 times larger than the installment on the average Akhuwat housing loan. While the most common use of the loan was construction for the Akhuwat sample, commercial banks tend to lend largely for the purchase of existing homes.

recommend several design features to consider for sustainably offering long term housing loans. In what follows, we summarize the key insights from these interviews.

Reducing default risks: None of the providers interviewed report rates of defaults higher than a standard microfinance loan (approx 5%). However, this is largely because of strict criteria that determines client eligibility and – though not explicitly stated – strong reliance on existing relationships with the client base. Providers recognize that the housing finance borrowers pose greater risk than other borrowers in their portfolio. Debt to income (or the debt burden ratio) of housing loan borrowers are 25% higher than other commercial bank borrowers. Commercial banks are reluctant in this space because applicants often do not have documented sources of income, making verification of income and assets difficult. Land deeds can be used as collateral. However, land deeds are commonly unavailable, requiring lengthy verification processes via government revenue authorities, highlighting the need for mortgage finance providers to step into the low-income segment market. Currently, providers report having little recourse for managing default risk beyond providing some degree of flexibility on repayment times and amounts and are unsure of the recourse available to them in the case of exceptional circumstances, e.g., if the borrower sells the land on which the loan was provided. These risks explain why commercial banks are reluctant to work in this space without substantial government support.

Redesigning loan disbursement: The loans are designed to be released in tranches: subsequent tranches are released to clients when the current tranche has been fully expensed. This feature can help monitor client expenditure on the one hand and manage liquidity of the providers on the other. In case of inevitable construction delays, customers bear the expense and pressure of increasing costs of construction while they wait for the next tranche to be released, increasing the probability of their default. While loan providers have been sympathetic and are open to moving up release dates, they are heavily impacted by the pace at which funds are released by the government. With unprecedented inflation, including in the construction sector, this mismatch between the needs of the clients and the timing of funds can prove to be unsustainable in the long run.

Redesigning loan size and tenure: With uncertainty about the costs of construction, and raising costs, clients and loan officers suggested that the principal loan amount for low-income households should be increased. Senior management, on the other hand, is concerned about unverified income sources and vulnerability to shocks making predictions about long term repayment capacity difficult. Microfinance providers are used to providing loans of 12-18 months, and do not have the experience of managing a

portfolio of long-term loans (of up to 5 to 10 years). The debt burden ratio, which providers consider when providing loans, increases substantially over longer time periods. They provide two suggestions for resolving the mismatch between client's liquidity needs, and the risks providers face. One, restructuring the loan product to shorter and smaller loans; allowing clients to apply for subsequent loans on the successful clearing of all dues. Each subsequent loan can take updated cost estimates into account. While this design can help balance liquidity and risk concerns for borrowers who require loans for renovations and extensions, it is likely to filter out clients who require larger lump sums, e.g., for the construction of a new house.

Second, and less preferred, the government could provide support for rescheduling of the loans. A similar facility was offered at the start of the pandemic, when low-income borrowers could defer the repayment of principal amounts by up to 12 months.[5] This option is less preferred because a systematic improvement in borrower repayment capacity is not expected. With high rates of inflation and continuing pressures on real income, deferment by 12 months will likely lead to higher defaults when the loan falls due.

6. Conclusions

Affordable and effective housing finance for the low-income sector has the potential to address the many issues that hinder the economic progress of a country; especially the ones already struggling with development. This study makes use of surveys and semi-structured interviews with applicants, borrowers, loan officers and senior management, to understand user and provider experience with the housing finance products.

Preliminary analysis reveals a number of interesting insights: We find a high demand for the construction of new housing among this sample of low-income borrowers, and concerns about increasing costs leading to incomplete projects and defaults from both borrowers and loan officers. Expected costs of construction of new homes are 60 - 140% higher than the median loan amount. This reveals a key demand side issue of escalating property prices and a lack of adequate financing products. The existing diminishing *musharaka* loan product is unable to incorporate the unprecedented inflation and increase in construction costs, potentially leading borrowers to substitute loan obligations for more productive investments (e.g., in their business).

[5] https://www.sbp.org.pk/COVID2/Loans.html

To reduce risks of default, providers recommend government support in the form of subsidized building materials. However, a key issue on the supply-side are adverse selection and moral hazard risks. Our conversations with providers reveal that authentication via land deed registries and guarantors can be effective tools to deal with these risks, but that the infrastructure for verification of land deeds and income sources is largely lacking. Loan officers recommend a more efficient solution than subsidized financing alone may be for the government to take on construction of new houses. Construction costs are often higher than expected because of imperfect information - borrowers are unable to find reliable contractors who would complete construction affordably. By facilitating construction and timely release of funds, the government can largely eliminate risks in the construction market for low-income borrowers. On the other hand, there may also be a need to re-think the optimal design of the housing loan - its size and tenure.

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