

The cover features a central title in bold black and orange text. The background is a light orange geometric pattern of triangles. Various icons are scattered around the title, including a pie chart, a line graph, a balance scale, a money bag labeled 'Rs.', a gear, a checkmark, stacks of coins, and icons of people in professional and industrial attire. The overall theme is financial growth and social impact.

MICROFINANCE & ENTERPRISE GROWTH EVIDENCE FROM PAKISTAN

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The views expressed in this document are those of the authors and do not necessarily reflect the views and policies of Karandaaz Pakistan, DFID and PMIC.



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ACRONYMS

A2F	Access to Finance
APR	Annual Percentage Rate
CGAP	Consultative Group to Assist the Poor
DB	Doing Business
DFID	Department for International Development
FSP	Financial Services Providers
FTE	Full-time Equivalent
GLP	Gross Loan Portfolio
GP	Gross Profit
HDI	Human Development Index
IRR	Internal Rate of Return
MFB	Microfinance Bank
MFI	Microfinance Institution
NBFIs	Non-Banking Financial Institutions
NP	Net Profit
PMIC	Pakistan Microfinance Investment Company
PMN	Pakistan Microfinance Network
PPAF	Pakistan Poverty Alleviation Fund
PKR	Pak Rupee
ROTA	Return on Total Asset
ROCE	Return on Capital Employed
RSP	Rural Support Program
SBP	State Bank of Pakistan
SD	Standard Deviation
SMEs	Small and Medium Enterprises
UN	United Nations
WB	World Bank



EXECUTIVE SUMMARY

Globally, microfinance has grown significantly over the past two decades in terms of outreach, financial products and services and sustainability. This growth has attracted the attention of policymakers and development organizations alike, who are keen to understand the potential microfinance has in delivering development outcomes of interest. A number of studies have been commissioned around the world, including Pakistan, to investigate the impact of microfinance (mostly credit and to some extent, savings) on household welfare, women's empowerment and even children's education, health expenditure, asset ownership, etc. However, there is relatively less research on understanding the dynamics of the business that the borrower runs i.e. the microenterprise itself. This study aims to contribute to literature that focuses on the financial health and profile of a micro-enterprise, with a focus on understanding the employment profile and growth trajectory of the business. Specifically, the study aims to answer the following questions in Pakistan's context:

1. How does revenue of a microenterprise grow over one loan cycle/year? Revenue growth is seen as a proxy for growth of the business.
2. How does the employment profile of a microenterprise change over one loan cycle/year? Additionally, what does the profile look like in terms of gender and youth?
3. Is microcredit affordable for the borrower?
4. How do borrowers use the loan? More specifically, is it used entirely for business purposes or is it diverted (wholly or partially) towards household consumption?

Quantitative data was collected through a survey of 125 microenterprises during October – November 2018. The sample was selected to ensure diversity of geography, economic sector in which the enterprise was operating, gender of the borrower and type of microfinance provider (bank vs. non-bank). The distribution across these parameters mimicked that of the overall sector distribution, for which quarterly data is published by the Pakistan Microfinance Network. Selection of respondents was randomized at the branch level. A questionnaire was designed to capture key financial information about the business as well as changes in the revenue and employment profile of the enterprise over one year. Overall, 11 microfinance providers participated, who collectively account for 55.2 percent of the sector's current outreach in terms of active borrowers. Geographically, the study covered Punjab, Sindh and Khyber Pakhtunkhwa. The top five sectors selected, include Agriculture, Livestock, Trading, Services and Others (includes manufacturing). 46 percent of the sample was female. 55 percent of the sample consisted of clients of microfinance banks and 45 percent clients of non-bank microfinance institutions.

At a broader level, a key outcome of interest for the study was the growth of a micro enterprise over one loan cycle (or one year as majority of micro-loans have a one-year tenure in Pakistan). Employment and revenue indicators were used to estimate growth. An increase in revenue of a profitable business alludes improved performance, as increase in revenue leads to either increase in net income or assets of an enterprise. In both cases it signals growth of an enterprise over time.

Similarly, an uptick in jobs supported can be a good indicator of growth of a business, especially in case of microenterprises as these businesses tend to have limited cash which restricts additional hiring unless the business growth justifies the expense.

In terms of **revenue** profile, we find that, on average, a microenterprise earns PKR 1.6 million in annual revenue. However, this varies considerably across economic sectors, being considerably higher in *trading* and *manufacturing* sectors. Average fixed assets for the sample were calculated to be PKR 1.5 million, with highest asset base in agriculture sector due to landholding. Women-led microenterprises tend to be smaller, earning 63 percent of what their male counterparts earned as revenue in a year. In terms of growth in revenue, we find that annual revenue of the microenterprises in the sample increased by 25 percent on average. Using information on loan amounts, we calculate a 'revenue multiplier' i.e. amount of incremental revenue generated per PKR 1.0 million in loans in microfinance. We estimate this to be 4.1x for the overall sample. However, the methodology of the study does not allow us to attribute this growth of revenue to the loan alone.

We look at **jobs** in a microenterprise through 'head count' indicators as well as 'number of hours worked', taking into account full-time employment supported (defined as at least 20 hours of paid work per week), part-time employment as well as seasonal employment. We find that on average, a microenterprise directly supports 2.6 full-time jobs. 40 percent of the employees are women. 45 percent are youth i.e. in the 20-34 years' age group. We find that women-led businesses employ more women: the 57 women-led microenterprises in our sample employed 101 women whereas total women employed by 68 men-led microenterprises was 15. In terms of growth in employment, 19.1 jobs (head count basis) were collectively added in a year across the 122 respondents for whom this data was available. Hence, on average, a microenterprise in our sample created 0.15 additional full-time equivalent jobs over one year. We use this data to calculate a 'jobs multiplier', i.e. number of jobs supported per PKR 1.0 million in loans in microfinance. We estimate this to be 29.3x i.e. 29.3 FTE jobs supported per PKR 1.0 million in loans to microenterprises. When we consider increase in jobs supported in terms of number of hours worked, we find that the employment effect is bigger. This suggests that microenterprises first preference is to increase the level of effort of existing employees rather than adding more people in periods of growth. It should, however, be remembered that the methodology of the study does not allow us to attribute growth in jobs supported to the loan alone.

Questions on **affordability** of microfinance persist in the global discourse of the sector. Generally, the cost of microcredit is higher due to small ticket sizes and higher costs of delivery, even though portfolio losses tend to be low. However, studies find that microenterprises have high returns to capital and their challenge is often access rather than cost (as alternatives in informal financial markets tend to cost even more). For purposes of this study, affordability is determined through a comparison between effective interest rate (EIR) and Return on Total Assets¹ (ROTA). We find that the

¹ Return on Total Assets is defined as profits before interest and taxes (PBIT) divided by total net assets.

effective APR of the microfinance institution participating the study is 38 percent. For the sample, EIR comes to about PKR 32,000 on an average loan of PKR 85,000. On the other hand, the average return on total assets (ROTA) for our sample is 12.2 percent, which equals PKR 182,000 in value terms. This suggests that microenterprises are able to generate sufficient returns to afford debt financing.

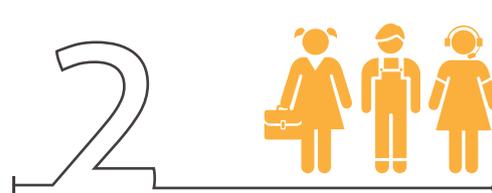
The average interest coverage of the microenterprises studies is 10.2 times and the average debt service ratio is 2.0 times. Debt equity ratio is 7.0 percent, indicating that the microenterprises are not highly leveraged. The average assets of the industry per microenterprise stand at PKR 1.5 million. The asset turnover for the industry, on average, is 1.1 times. Average monthly income of microenterprises is about PKR 13,000 (and average distributable monthly income is PKR 41,000). The gross profit margin is 37 percent and the net profit margin is 11 percent. Financial cost is 4 percent of overall operating expenses, and 77 percent of the operating cost comprises salaries, wages and owners drawing. 14 out of the 125 microenterprises analysed had negative equity, where the assets reported by microenterprises were less than the liabilities.

While the results of the study show generally positive outcomes of microfinance in terms of growth of enterprises and employment support, these results can vary significantly across economic sectors and sub-groups like gender and maturity of an enterprise. Additionally, like any research, choices in terms of methodology and sample size were made during this study and interpretations of the results should be made with these in view. Appropriate sample size and selection are always a challenge for studies of this nature that require in-depth financial and non-financial information from a respondent. Nevertheless, the study offers useful data and insights into the financial profile of micro-businesses and can prove to be a good basis for further investigations that aim to understand how microenterprises grow and contribute to economy.

KEY RESULTS FROM SAMPLE OF THE STUDY



On average, a microenterprise earns PKR 1.6 million as annual revenue, which increased by 25 percent from previous year. However, this varies considerably across economic sectors, being higher in trading and manufacturing sectors. Using information on loan amounts, we calculate a 'revenue multiplier' i.e. amount of incremental revenue generated per PKR 1.0 million in loans in microfinance. We estimate this to be 4.1x for the overall sample. However, the growth in revenue and jobs supported cannot be attributed to the loan alone.



On average, a microenterprise directly supports 2.6 full-time jobs and created 0.15 additional full-time equivalent jobs over one year. Using information on loan amounts, we calculate a 'jobs multiplier' i.e. number of jobs supported per PKR 1.0 million in loans in microfinance. We estimate this to be 29.3x for the overall sample. We find that women-led businesses employ more women. Overall 40 percent of the employees are women and 45 percent are youth i.e. in the 20-34 years' age group.



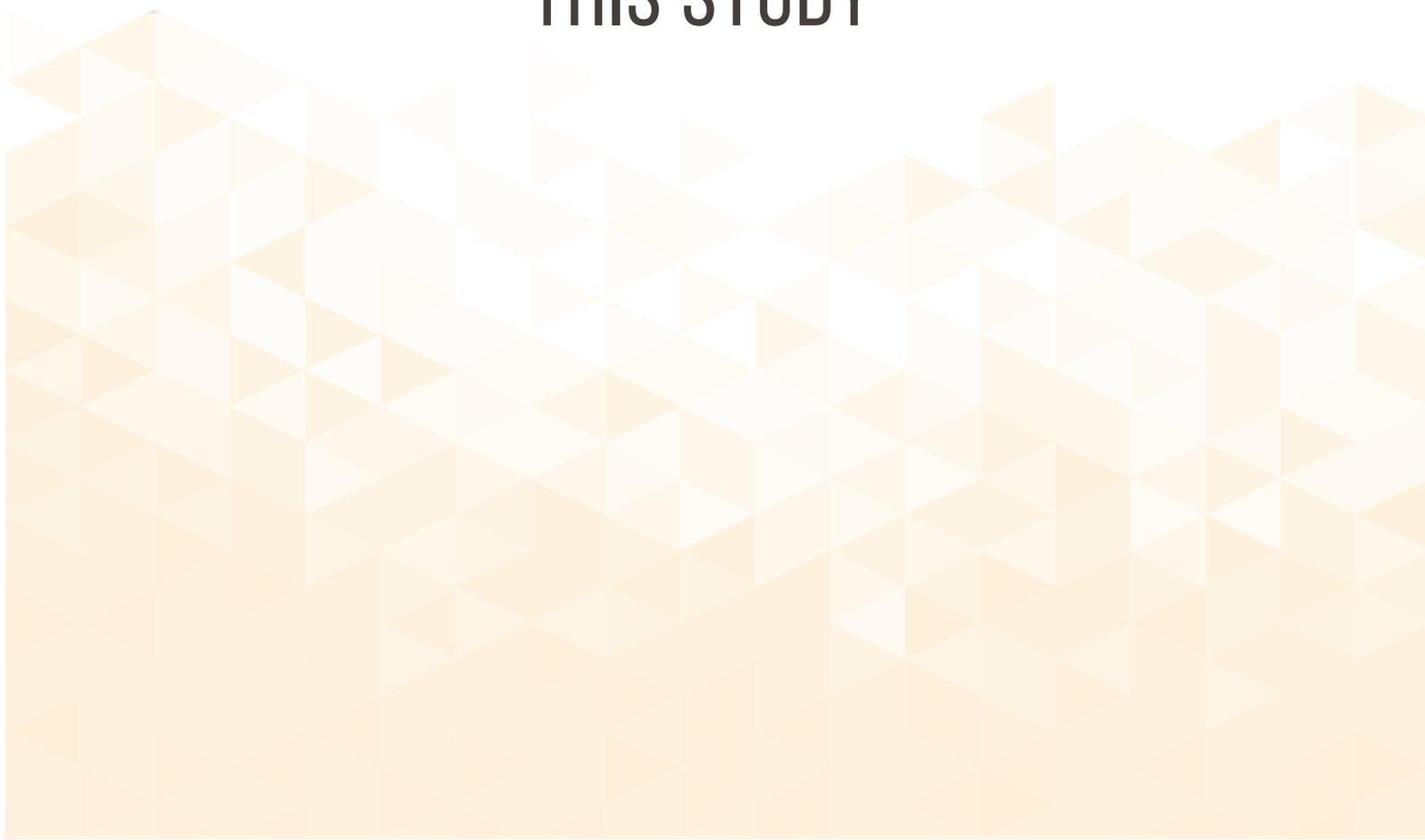
In absolute terms, average distributable monthly income of a microenterprise is PKR 41,000. The average interest coverage of the microenterprises is 10.2 times and the average debt service ratio is 2.0 times. The asset turnover for the industry, on average, is 1.1 times, and return on total assets is 12.2 percent. The gross profit margin is 37 percent while the net profit margin is 11 percent.



On usage of loan, about 12.2 percent of loan amount (value in PKR) and about 13.1 percent of borrowers diverted loans towards consumption rather than business purposes.



THE CONTEXT: MICROFINANCE IN PAKISTAN AND RELEVANCE OF THIS STUDY



1. THE CONTEXT: MICROFINANCE IN PAKISTAN AND RELEVANCE OF THIS STUDY

Over the past few decades, microfinance has evolved into a global movement, gaining traction in developing countries like Pakistan. Outreach has grown significantly, with the number of people served by microfinance providers reaching nearly 140 million² and the industry itself becoming more sustainable, efficient and responsible.

The microfinance industry in Pakistan is no different. It has grown rapidly over the past few years, going from 2.4 million borrowers in 2013 to 6.9 million active borrowers by the end of 2018, thereby expanding, on average, by 24 percent over the past five years.³ These clients are served by 46 Microfinance Providers (MFPs) of which 11 are microfinance banks (MFBs) and the rest are non-bank microfinance companies (NBMFCs), more commonly referred to as microfinance institutions (MFIs). Collectively, these MFPs are present in 135 districts of Pakistan (out of a total of 158 districts) through 4,230 branches. That said, Pakistan Microfinance Network (PMN) – which is the national association of microfinance providers in the country – estimates that the potential market size for microfinance is 20.5 million clients⁴, and the industry has only reached one-third of its potential market.

Over the years, entry of new players and growth in outreach has led to diversification within the industry. The MFPs serve a range of markets and clients. For example, some having a focus on women, while a few focus on rural areas. This diversification is reflected in their portfolios, average loan sizes, the types of products they offer, and the gender break up of their client base. Overall, MFBs serve 46 percent of the total borrowers while MFIs serve 54 percent. Geographically, majority of the borrowers are concentrated in the province of Punjab (75 percent), Sindh (20 percent) and KP (2 percent). More than half the borrowers are women (53 percent) and slightly over half are from rural areas (51 percent).⁵

The economic sectors in which the microfinance borrowers operate are also diverse. Data collected by the PMN generally classifies borrowers in the following economic sectors: a) livestock/poultry; b) trade; c) agriculture; d) services; e) manufacturing/production; and f) others. To meet client needs, a variety of products are offered from general loans to specialized enterprise development loans. The industry's average loan size disbursed during the last quarter of 2018 was PKR 55 thousand whereas average loan size outstanding at the end of 2018 was PKR 40 thousand.⁶

In addition to micro-credit, MFPs also offer micro-savings and insurance services⁷. However, these are not discussed in detail here given the focus of the study relates to the use of credit by a microenterprise.

² MIX Market, 2017, MIX Market ([http:// www.themix.org/mixmarket](http://www.themix.org/mixmarket))

³ MicroWatch Issue No. 47, PMN. [Jan – Mar 2018]

⁴ PMN. 2015. Estimating Potential Market Size for Microcredit in Pakistan.

⁵ Ibid.

⁶ MicroWatch Issue No. 50, PMN. [Oct-Dec 2018]

⁷ Ibid.

1.1 OBJECTIVES & SCOPE OF THIS STUDY

As microfinance has grown, there has been considerable interest to understand the impact it has on the clients. Governments and the international development community has been particularly interested in studying the effects of access to microcredit on household welfare, women's empowerment and even children's education, health expenditure, asset ownership, etc. A number of studies have been commissioned by donors such as the Department for International Development – UK (DFID) and The World Bank, and academic community to measure and track socio-economic impact of microfinance. Overall, they find mixed evidence on the impact of microfinance on the borrowing individuals and households. For example, a Systematic Review on the impact of microfinance interventions in South Asia by DFID in 2016 concluded “an overall positive influence on various outcomes. However, there is inconclusive evidence of the impact of microfinance in terms of alleviating poverty, and the evidence suggests that the impact of microfinance in improving income, education, women's empowerment, and employment are marginal.”⁸ [A more detailed literature review is included in Annex 1].

Several studies have also been undertaken in Pakistan over the years. Most of these have focused on studying effects of microfinance on indicators such as increase in education of children, improved housing, increased security of food, increase in expenditure by households and increase in assets owned by households. This is not surprising given that microfinance is considered by many as an important tool for poverty alleviation, economic empowerment of women and transformation of the lives of people living at the bottom of the pyramid. However, there is relatively less research on understanding the dynamics of the business that the borrower runs i.e. the microenterprise itself. In Pakistan's context, PMN's 2011 study “*Estimating Micro-Businesses' Ability to Pay*” aimed at profiling the financial performance of microenterprises in order to understand the affordability of microcredit. In order to answer the question of whether financial returns on a micro-loan are higher than its cost, the study developed detailed financial profiles of microenterprises in five economic sectors. However, the study is now dated and suffered from some limitations, in particular sample selection bias – the respondents (i.e. microfinance clients) were selected by the participating MFPs themselves.

This study aims at developing a profile of the economic dynamics of a microenterprise, with a focus on understanding the employment profile and growth trajectory of the business. The employment profile is especially important for a country like Pakistan where the challenge of job creation particularly for women and youth is immense. Demographically, Pakistan's population is skewed towards the youth, as more than 60 percent of the population is under the age of 30, with this trend

⁸ Gopaldaswamy A.K., Babu M.S. and Dash U. 2016. Systematic review of quantitative evidence on the impact of microfinance on the poor in South Asia. London: EPPI-Centre, Social Science Research Unit, UCL Institute of Education, University College London.

expected to continue in the years to come given the high growth rate of the population.⁹ The United Nations estimates that Pakistan needs between 1.5 and 2.5 million new jobs every year to employ the youth entering into the work force.¹⁰ Policymakers recognize that supporting entrepreneurs – whether those who want to start a business or those who want to grow their existing business – is going to be a key driver of job creation in the country¹¹. There is also a recognition that women’s participation in the labour force needs to be drastically improved if Pakistan is to realize its growth potential. In a country where majority of the self-employed are engaged in microenterprises, understanding the dynamics of job creation and employment in the sector would help policymakers and development actors make informed decisions.

Specially, the study aims to answer the following questions in Pakistan’s context:

1. How does the employment profile of a microenterprise change over one loan cycle/year? Additionally, what does the profile look like in terms of gender and youth?
2. How does revenue of a microenterprise grow over one loan cycle/year? Revenue growth is seen as a proxy for growth of the business.
3. Is microcredit affordable for the borrower?
4. How do borrowers use the loan? More specifically, is it used entirely for business purposes or is it diverted (wholly or partially) towards household consumption?

The first question on employment profile has not been systematically researched in Pakistan’s context, in our knowledge. The other three questions were investigated in the 2011 PMN study, however, this study aims to update the information and also improve on the methodology of the previous work. Questions on affordability and usage of microcredit remain relevant today. In a rising interest rate environment, it has become especially important to track the cost of finance and its returns to avoid systemic risk and ensure responsible lending.

⁹ Dr. Adil Najam and Dr. Faisal Bari, (December 2017), Pakistan National Human Development Report 2017, UNDP Editorial - Development Matters. 64 percent of the total population is below the age of 30 while 29 percent is between the ages of 15 and 29 years.

¹⁰ Ibid.

¹¹ Key members of the current government’s economic team have emphasized entrepreneurship in their statements. For example, Advisor to the Prime Minister on Commerce Abdul Razak Dawood said in an interview to Profit magazine on 30 March 2019, “Promotion of entrepreneurship in the country is among the top priorities of the government...the country needs more entrepreneurs in order to enhance business activities”. The Prime Minister, Mr. Imran Khan in his speech on April 21, 2019 also “urged the youth for entrepreneurship rather than looking for government jobs.”

1.2 RESEARCH DESIGN

The purpose of this study is to understand the financial and employment dynamics within microenterprises that have gained access to finance through MFPs. Using detailed financial data, the study also aims to shed light on affordability and usage of microloans. The study was carried out in three stages:

1. **Desk research:** this involved an analysis of sector level data to understand key trends in outreach, review of relevant literature and documents to inform the research tools, and collection of data from MFPs that could be used to define the sample.
2. **Data collection and collation:** data was collected over two months i.e. October to November 2018 through a team of enumerators using paper based questionnaires.
3. **Analysis and report writing:** data was collated and cleaned, which involved repeat visits to respondents and checking for anomalies. Finally, findings were compiled in the form of a written report.

The study was overseen by a Steering Committee comprising representatives from DFID, Karandaaz Pakistan (who funded this study) and Pakistan Microfinance Investment Company (PMIC).

1.3 THE SAMPLE

A sample of 125 microenterprises was selected. As stated above, the microfinance sector has diversified over time and there are different types of players, economic sectors and products being offered. To capture differences across segments, the sample was designed to cover the five key economic sectors, include clients from MFBs and NBMFCs, ensure male/female representation as well as geographic spread of microfinance outreach. Distribution across these segments was mapped against the actual overall outreach of microfinance in the country:

- **Selection of participating MFPs:** There were 46 MFPs reporting to PMN at the time of the research. However, the bulk of the outreach is accounted for by 12 MFPs (they account for 62 percent of the total active borrowers). This excludes Akhuwat, which represented 15 percent of the market share. A decision was taken to exclude Akhuwat since it is an Islamic MFP which does not charge interest. Excluding Akhuwat, market share of MFBs is about 53 percent and remaining with NBMFCs. Hence, an equal number – six each - of MFBs and NBMFCs were approached to participate in the study. However, during the study two MFBs recused themselves, and therefore 4 MFBs and 7 MFIs participated in the study.

- Selection of economic sectors:** Data for active borrowers from PMN's quarterly MicroWATCH (Issue No. 47) was used to identify the top economic sectors in which MFPs are lending. These were livestock (25 percent), agriculture (19 percent), others¹² (17 percent), trade (17 percent), and services (15 percent). Manufacturing/production is only 6 percent; hence, it was clubbed with "others" for the purposes of this study. MFPs were asked to provide lists of major sub-sectors within the larger economic sector categories mentioned above. Based on the list of major sub-sectors, top 3-5 common sub-sectors were selected within each category (see Box for details on sub-sectors).

Economic sector and sub-sectors

Microfinance providers tend to classify borrowers in five large categories: agriculture, livestock, trading, services and others. These are broad categories that can include a variety of sub-sectors and types of enterprises. The top sub-sectors that the microfinance sector is currently financing are shown below.

SECTOR	TOP FIVE SUB-SECTORS
Agriculture	Agriculture-general; Sugarcane; Cotton; Wheat; Rice
Livestock	Livestock -general; Milking/dairy; Rearing & fattening - large ruminants; Rearing & fattening-small ruminants; Fisheries
Trading	Trading/Business; Handicraft; Other retailing; Grocery/ General Store; Cloth Store
Services	Services-general; Tailoring/stitching; Transport; Self-employed; Beauty Parlor / Salon
Others	Personal loan; Others-general; Housing repair & renovation; Garments/ tailoring/ handicrafts; Manufacturing-general

¹² 'Others' included sub-sectors that were not otherwise classified in any of the above-mentioned sectors, e.g. personal loans, house repair and renovation, etc. Others, wherever referred in the report includes manufacturing.

- **Geographical distribution:** At the time of sample selection, 76 percent of the active borrowers were from Punjab, 19 percent from Sindh, 2 percent from Khyber Pakhtunkhwa (KP) and 3 percent from the remaining provinces of Pakistan. The sample was distributed between Punjab and Sindh according to their respective share of active borrowers and the remaining sample was completed from KP. Balochistan, the tribal areas, AJK and ICT were excluded as they had significantly lower microfinance penetration. For the listing of sample, 12 cities were identified with the highest level of microfinance client penetration and the presence of maximum number of participating MFPs. The cities included Lahore, Faisalabad, Rahimyar Khan, Gujranwala, Multan, and Bahawalnagar in Punjab (6 cities); Karachi, Hyderabad, Sukkur and Sanghar in Sindh (4 cities); and Abbottabad and Haripur in KP (2 cities).
- **Gender distribution:** The sample was distributed over 54 percent male-led microenterprises and 46 percent women-led enterprises at sector level, reflecting the overall gender distribution of active borrowers.
- **Distribution by type of MFP:** The sample was distributed as 45 percent for MFI clients and 55 percent for MFB clients (rounded to nearest whole number) based on distribution of active borrowers.
- **Listing of sample:** 11 participating MFPs were requested to share the list of their clients in 12 cities that were identified in geographical distribution; the sample was listed based on the sector, gender and MFP distribution parameters indicated above.

In order to eliminate selection bias, respondents were selected randomly from a list of clients provided by the MFPs at the branch level. Client lists were obtained from participating MFPs. These client lists were segregated according to geographic distribution i.e. Punjab, Sindh, and Khyber Pakhtunkhwa. Each geographic list was sorted and arranged for economic sector, followed by sorting by gender of borrower. After arrangement of lists, a random number was generated for each client using Microsoft Excel formula, which was then sorted in descending order. From a randomly arranged sample, required number of clients (including a buffer of 200 percent in case of dropouts were identified, i.e. 125 plus 250 additional clients) as per sample distribution quotas for location, sector and gender. Enumerator or the MFP staff had no discretion in client selection.

1.4 THE TOOLS & DATA COLLECTION

The key data collection tool was the in-depth questionnaire developed for capturing relevant information through interviews with the borrowers. The questionnaire was translated from English into Urdu and captured information on demographics of the borrower, loan details, loan usage, employment within the enterprise (including seasonality, working hours, gender and age profile

of employees and the microenterprise's financial information including balance sheet and profit and loss accounts. Correspondingly, product and pricing information was collected from the MFPs through a structured questionnaire to calculate effective annual percentage rate (APR) and address question on affordability of credit.¹³

Data was collected by enumerators who had been trained on the survey tools. During data collection 20 percent spot checking was done by supervisors in person and additional quality assurance was undertaken through telephonic verification with the clients. Loan officers of MFPs did not accompany enumerators, and in cases where they accompanied for client identification purpose, were asked to leave before the interview. Once the data was collected, it was sense checked by the team of financial analysts before entry to the analysis software i.e. SPSS. After data entry, data was further validated for reasonableness, and at this point, some clients were again contacted for verification of data. Data was collated and analyzed by the core research team.

1.5 RESEARCH LIMITATIONS & CHALLENGES

The research design for the study creates certain limitations on how the data can be interpreted. Like any research, the team considered trade-offs in terms of availability of information, time and financial constraints, and access to respondents when finalizing the approach to sampling and data collection.

One of the key considerations was the detailed level of financial information required for the construction of an enterprise's financial statements. This had implications for the number of respondents that could be included in the study. Ideally, we would have wanted a larger sample size to get more robust results. However, a choice was made to limit the sample size given that the additional costs outweighed the incremental precision in results. The overall sample size selected for the study was 125, which gives an error margin of +/- 8.77 percent at 95 percent confidence level. To get a reduced error of margin of +/- 5 percent, which is more robust and generally more acceptable, the sample size would have to be increased by almost three times to 384.

One of the implications of the relatively small sample size is that analysis at the sub-indicator level, especially economic sectors, is based on 20-25 respondents. This limits the utility of the data to undertake detailed statistical analysis of the business models of microenterprises in various sub-sectors, which may have been useful for product specialization.

Another challenge was the ability of the research team to randomize the selection of respondents. A 'true' representation would require a universe of microfinance borrowers by business category from

¹³ The data collection tools are available on request from the Pakistan Microfinance Network.

which a random sample could be drawn. However, such a dataset is not available nor possible to construct without considerable cost and effort. Hence, purposive random sampling was adopted to ensure we included businesses across the different categories of interest (gender of the borrower, geographic location of the business, economic sector in which the business operates, etc.) and selection of the respondent was randomized at the branch level as explained above.

The results should be interpreted and applied keeping these limitations in view. Generalization of results to entire microenterprise and especially sub-sectors, should be avoided. With the sample used in the study, results are *indicative* for the sector.

1.6 OTHER CONSIDERATIONS

- **Microcredit vs Microfinance:** While microcredit and microfinance are often used interchangeably, the term microcredit refers to small loans whereas microfinance includes other financial services such as savings, insurance, etc. In this report, we use both terms to refer to microcredit given by MFPs.
- **Sample exclusions:** Another consideration while reading the results is that although there were 125 microenterprises in the sample, 3 of the respondents that were interviewed clearly stated that they had taken loan for consumption purposes and were, hence, excluded from the overall sample while doing some analysis e.g. employment profile.



DATA EXPLORATION AND ANALYSIS

2. DATA EXPLORATION AND ANALYSIS

This chapter of the report dives into the data to answer key questions under investigation. The key findings are categorized and organized in sub-sections for four thematic areas of growth in business of microenterprises; employment creation; financial performance of microenterprises & affordability of microfinance; and lastly usage of microloans for business versus consumption purposes. *Note: Important assumptions, key concepts and financial ratio formulas used for the purpose of analysis are defined in Annex B.*

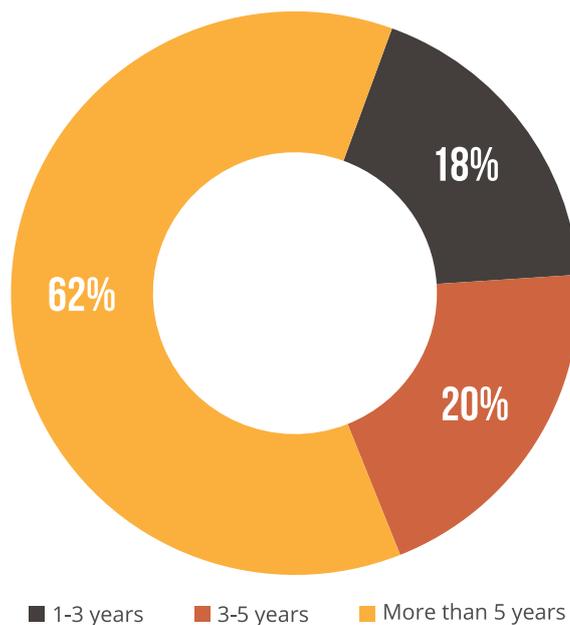
However, before providing key findings, a statistical analysis of the sample is included so the reader can contextualize the findings.

2.1 SAMPLE CHARACTERISTICS

Some key characteristics of the sample are discussed below.

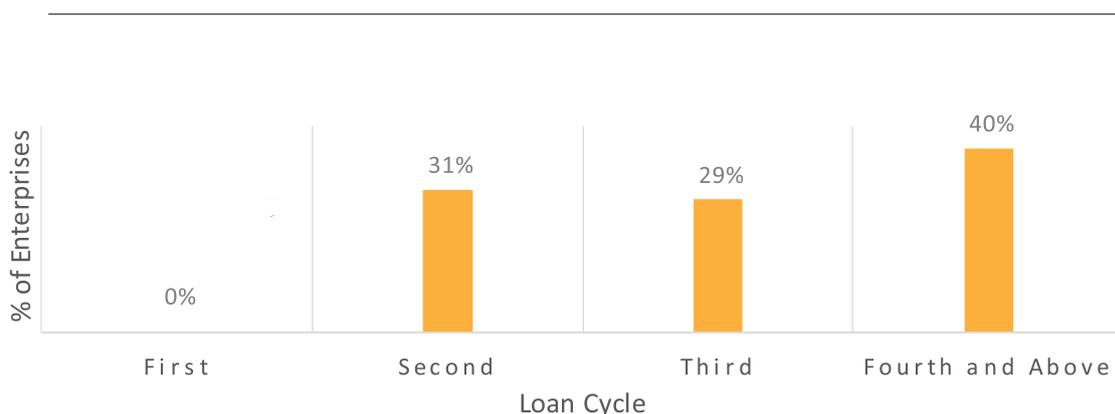
Around 62 percent of microenterprises included in the study were operational for more than 5 years and 20 percent between 3 to 5 years. 18 percent were relatively young enterprises, established in the past three years (Figure 1).

Figure 1: Age of surveyed microenterprises



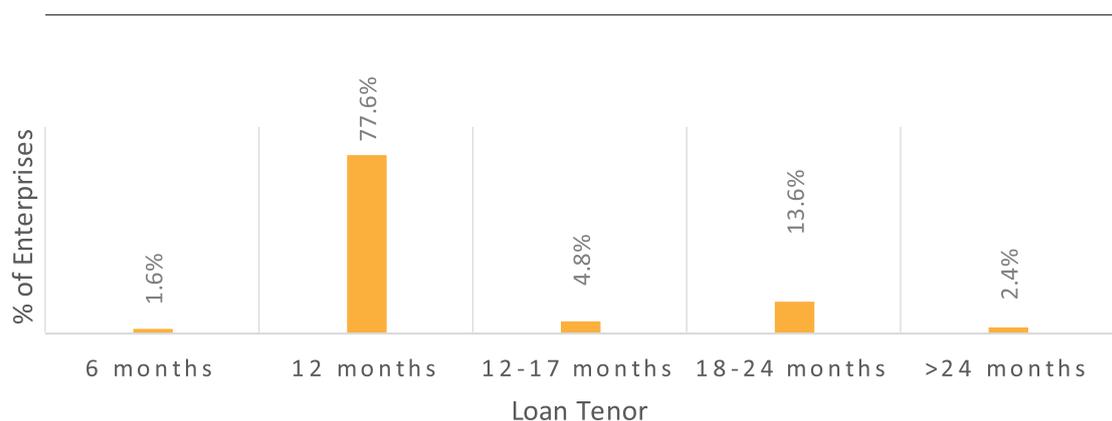
Microenterprises who were in their first loan cycle were not included in the survey, particularly because it may not be possible to assess the change in revenue and jobs without completion of at least one loan cycle. 60 percent of participants were in their second and third loan cycles and the remaining participants were in fourth and above loan cycles (Figure 2).

Figure 2: Loan cycle of microenterprises



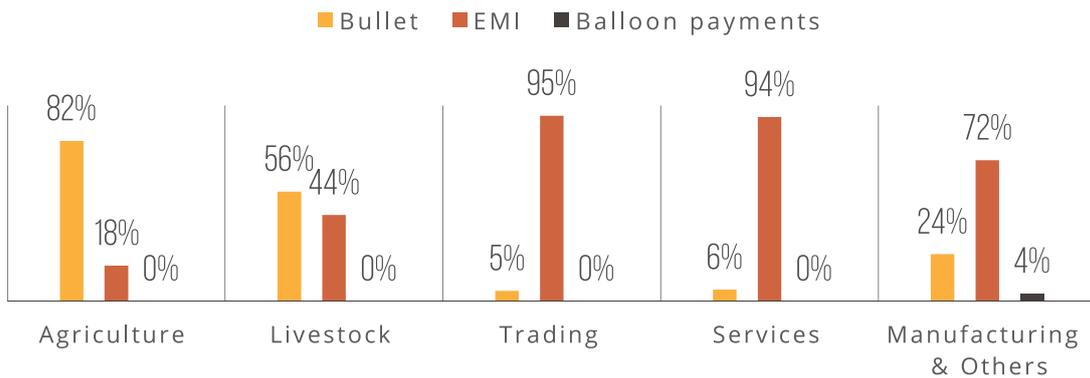
For almost 80 percent of microenterprises in the sample, the loan tenor is one year or less. 18 percent have loan tenor between 13 to 24 months. Only 2 percent have loans for more than two years. This indicates that microfinance loans are currently not being used for long term strategic enterprise growth. The average loan tenor for the sample micro-enterprises was 14 months (Figure 3).

Figure 3: Loan tenor of the sample



33 percent of the loans were bullet loans, 66 percent were equal monthly installment (EMI) loans and 1 percent were balloon repayment loans. Bullet loans are concentrated in Agriculture, Livestock and Others sector. EMI loans are more common in trading, services and Others sector (Figure 4).

Figure 4: Repayment terms of loans



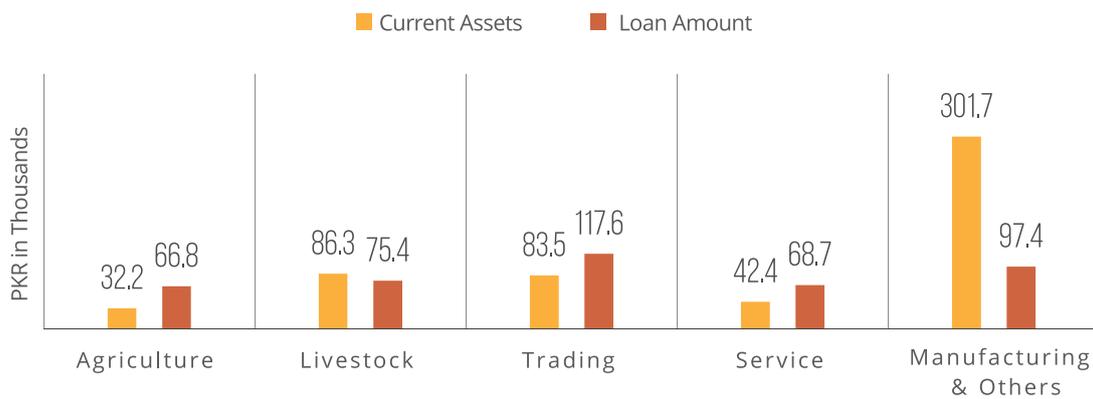
Overall, average fixed assets for the sample were calculated to be PKR 1.5 million. Average fixed assets of the agriculture sector are the highest at PKR 3.5 million, followed by trading sector at PKR 1.4 million, livestock sector at PKR 0.92 million, Others at PKR 0.63 million and services at PKR 0.46 million (Figure 5). Important to note here is that value of land, wherever owned by the owner of the enterprise, was declared as fixed asset. However, fixed assets are only liquidated as last resort as they are held as cultural and family pride and have emotional value attached to them. Hence, it is important to look at current assets in relation to the liabilities of the enterprise.

Figure 5: Avg. Fixed assets of sectors in sample



Average current assets as well as the average loan amounts by sector are shown in Figure 6. For the sample, we find that average current assets stood at PKR 109,000 compared to average loan amount of PKR 85,000. Average loan amounts were higher than the average current assets in services, trading and agriculture sectors. Loan amount higher than current assets could signify higher risk in an incidence of loss or liquidation of business.

Figure 6: Current assets Vs. Loan amount (Avg.)



2.2 EVIDENCE ON INCREASE IN REVENUE OF MICROENTERPRISES

One of the main objectives of financing a business is to help it grow. For the purpose of this study, proxy indicators of revenue growth and job creation are used to measure growth of a business. The increase in revenue is calculated as the change in annual sales/revenue over a year. We find that, on average, there was 25 percent increase in revenue for the overall sample.

On average, a microenterprise's revenue increased from PKR 1.3 million to PKR 1.6 million over a year, posting an annual increase of 25 percent. This growth varied across economic sub-sectors with the highest increase in *Services* and *Livestock* sectors, followed by *Trading*, *Agriculture* and *Others* (Figure 7).

KEY FINDING – REVENUE GROWTH

On average, revenue of microenterprises in our sample grew by 25 percent over a year.

In absolute terms, highest growth was observed in the Trading sector, (PKR 488,000 in additional annual revenue), followed by Services (PKR 417,000), Others (PKR 409,000), Livestock (PKR 223,000) and Agriculture (PKR 56,000).

Some key reveals from the analysis are:

- The average loan amount in *Agriculture* is more than the average increase in revenue. This implies that leverage is not enhancing returns for agri borrowers the same way as it is for other sectors. It could also indicate vulnerability of borrowers to over-indebtedness. Given the importance of the sector in relation to the economy, employment and poverty, it is important to explore the dynamics of microfinance in agriculture further and experiment with new approaches of investment, such as provision of value-added services along with conventional financing in the sector.
- The total revenue for *Others* (includes manufacturing) was much higher (i.e. high turnover businesses) than the other sectors and accounted for almost 50 percent of the total revenue for the sample. This could imply that enterprises in this category are larger. However, the cost of sales and operational expenses for this sector are also higher, leading to net margins that are comparable to other economic sectors. Table 1 below shows the snapshot of sector wise lending, average revenue and total revenue of survey respondents.

Figure 7: Increase in revenue of microenterprises

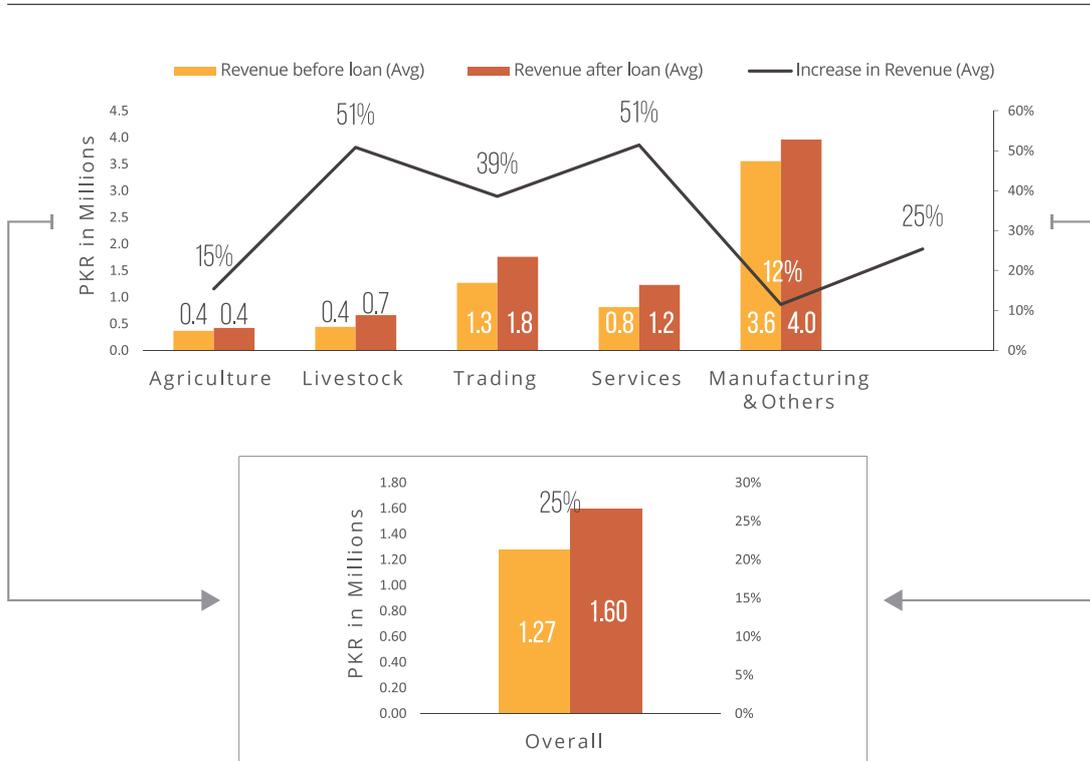


Table 1: Increase in revenue¹⁴

	SECTOR					
	AGRICULTURE	LIVESTOCK	TRADING	SERVICES	OTHERS	OVERALL
Number of Borrowers-#	22	25	19	34	25	125
Current lending (Avg)-PKR	67,000	75,000	117,000	69,000	97,000	85,000
Revenue before loan (Avg)-PKR	364,000	438,000	1,267,000	810,000	3,551,000	1,275,000
Revenue after loan (Avg) -PKR	421,000	660,000	1,756,000	1,227,000	3,959,000	1,599,000
Current lending (Total)	1,469,000	1,884,000	1,868,000	2,335,000	2,436,000	9,992,000
Revenue before loan (Total)-PKR	8,019,000	10,945,000	24,077,000	27,559,000	88,773,000	159,372,000
Revenue after loan (Total)-PKR	9,253,700	16,511,600	33,361,900	41,735,600	98,986,900	199,849,600
Total Assets (Avg)-PKR	3,542,000	1,021,000	1,492,000	501,000	932,000	1,494,000
Current Assets (Avg)-PKR	32,000	86,000	84,000	42,000	302,000	109,000
Revenue Multiplier* - times	0.8	2.9	5.0	6.1	4.2	4.1

*Revenue multiplier = amount of incremental revenue generated per PKR 1.0 million in loans in microfinance.

¹⁴ Figures have been rounded off to nearest thousand.

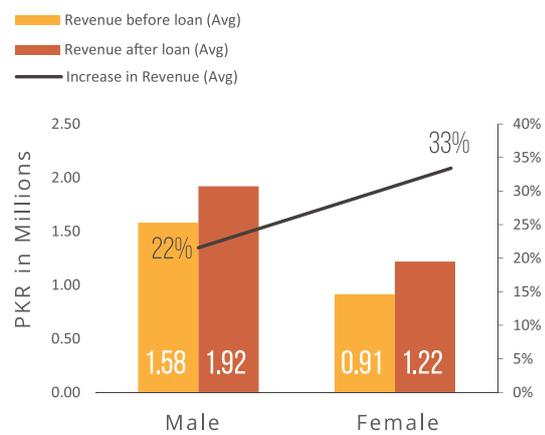
Analysis by Gender

Previous studies show that there is greater likelihood of women having smaller businesses compared to men. Data from a World Bank study of businesses in Lahore and Karachi shows that even among established businesses, 48 percent of women-led businesses have no employees compared to 24 percent of men-led businesses¹⁵. Our study corroborates the finding, with the asset base of women-led microenterprises being, on average, 84 percent of the asset base of men-led microenterprises in our sample. The average loan size of women borrowers was also lower, at only 58 percent of the average loan size of men-owned enterprises (Table 2).

This is also reflected in the revenue profile of our sample. Women-led microenterprises earned 63 percent of what their male counterparts earned as revenue in a year. However, in terms of revenue growth, women-led businesses outpaced men-led businesses, with revenue growing at 33 percent over a year compared to 22 percent for men-led microenterprises (comparison in terms of absolute numbers also shown in Table 2 below)



Figure 8: Increase in revenue by gender



This analysis should be interpreted with caution as it is not meant to attribute revenue growth with gender of a borrower. The data and study methodology is not suited for such an analysis. However, anecdotal evidence suggests that in some cases operating cost for women-owned businesses is lower than men-owned business. For example, in tailoring and beauty-salons women mostly run their business from home and do not have to bear rent and commercial utilities cost for shop as in the case of tailoring shop or barber shop run by men. This may be a question to be explored in future researches.

¹⁵ 'Catalyzing Women's Growth Entrepreneurship in Pakistan's Cities: Data from Karachi and Lahore'. Pakistan Development Update-November 2017. The World Bank.

Table 2: Revenue profile by gender¹⁶

	AGRICULTURE		LIVESTOCK		TRADING		SERVICES		OTHERS	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
Number of Borrowers	15	7	10	15	14	5	14	20	15	10
Current lending (Avg)	66,000	69,000	80,000	72,000	135,000	68,000	98,000	48,000	129,000	50,000
Revenue after loan (Avg)	401,900	460,600	780,280	580,600	2,144,800	667,000	2,018,800	673,600	3,891,600	4,061,200
Revenue before loan (Avg)	332,000	433,000	750,000	229,000	1,485,500	658,000	1,575,000	275,000	3,470,000	3,672,000
Current lending (Total)	986,000	483,000	799,000	1,085,000	1,624,000	244,000	1,370,000	965,000	1,936,000	500,000
Revenue before loan (Total)	4,986,700	3,032,100	7,506,400	3,438,700	20,785,000	3,292,000	22,049,000	5,509,500	52,057,500	36,715,200
Revenue after loan (Total)	6,029,700	3,224,000	7,802,800	8,708,800	30,027,000	3,334,900	28,263,000	13,472,600	58,374,700	40,612,200
Total Assets (Avg) PKR	2,862,000	4,998,000	572,000	1,289,000	1,845,000	503,000	677,000	379,000	1,132,000	632,000
Current Assets (Avg) PKR	24,000	49,000	86,000	87,000	62,000	63,000	62,000	29,000	159,000	516,000

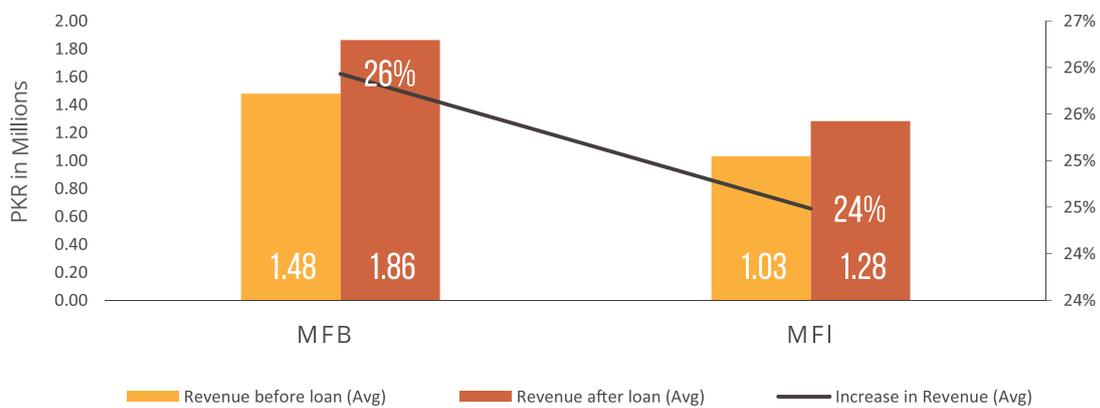
¹⁶ Figures have been rounded off to nearest thousand

Analysis by Type of MFP

We find that the size of an MFI borrower and an MFB borrower is significantly different. The asset base of an MFI is only 47 percent of the asset base of an MFB client i.e. an average MFI client has total assets worth PKR 0.85 million whereas average MFB client has assets worth PKR 1.8 million. The average loan size for MFI borrowers was PKR 59,000 compared to PKR 97,500 for MFB borrowers.

We find that revenue growth of the borrower may not be related to the type of MFP. MFB borrowers in the sample posted revenue growth of 26 percent as opposed to 24 percent for MFI borrowers. In absolute terms, the average annual increase for MFB borrowers was PKR 384,000 compared to PKR 252,000 for MFI borrowers (Figure 9). The data suggests that type of microfinance provider does not have a relationship with the level of increase in revenue of the microenterprise. We do, however, see that MFBs and MFIs are diverging in terms of the profile of the clients they serve. The loan size for MFB clients is 65 percent higher than MFI clients, suggesting MFBs are serving proportionately more clients with larger financing requirements than MFIs. This was also observed during the survey. Table 3 presents a snapshot of sector and MFP wise lending, average revenue and total revenue of survey respondents. For loans in various economic sub-sectors, the differences in average loan size is particularly distinct for MFB / MFI clients operating in trading and services sectors.

Figure 9: Increase in revenue by MFPS



MFB borrowers represented 54 percent of the total sample while 47 percent of the sample was MFI borrowers.

Table 3: Revenue profile by type of MFP¹⁷

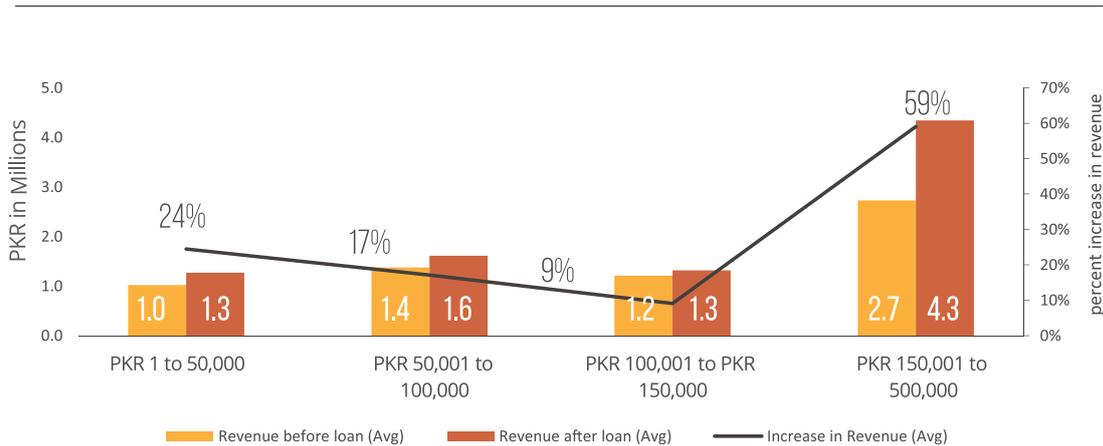
	AGRICULTURE		LIVESTOCK		TRADING		SERVICES		OTHERS	
	MFB	MFI	MFB	MFI	MFB	MFI	MFB	MFI	MFB	MFI
Number of Borrowers	14	8	18	7	15	4	11	23	10	15
Current lending (Avg)	74,000	54,000	85,000	50,700	136,000	48,000	105,000	52,000	124,000	80,000
Revenue before loan (Avg)	335,000	416,000	523,000	218,000	1,503,000	384,000	1,853,000	312,000	4,360,000	3,012,000
Revenue after loan (Avg)	398,800	460,800	808,800	280,800	2,104,000	452,000	2,401,000	666,000	4,864,000	3,357,000
Current lending (Total)	1,034,000	435,000	1,528,800	355,000	1,677,700	190,000	1,150,000	1,185,000	1,236,000	1,200,000
Revenue before loan (Total)	4,691,000	3,328,000	9,420,000	1,525,000	22,542,000	1,535,000	20,379,000	7,180,000	43,600,000	45,173,000
Revenue after loan (Total)	5,570,000	3,684,000	14,551,000	1,961,000	31,555,000	1,807,000	26,413,000	15,323,000	48,639,000	50,348,000
Total Assets (Avg)-PKR	3,707,000	3,253,000	1,294,000	251,000	1,738,000	569,000	841,000	339,000	1,279,000	701,000
Current Assets (Avg)-PKR	28,800	38,000	99,000	52,000	100,000	21,000	64,000	32,000	108,000	431,000
Revenue multiplier - times	0.9	0.8	3.4	1.2	5.4	1.4	5.2	6.9	3.9	4.3

¹⁷ Figures have been rounded off to nearest thousand

Analysis by loan size

Analysis of survey results segregated by loan size reveals that the average increase in revenue was highest for largest loan size category in percentage as well as value terms for the sample microenterprises.

Figure 10: Increase in revenue by loan size



Whereas the total increase in revenue is much higher for smaller loan sizes as the survey respondents were concentrated in smaller loan size categories i.e. 88 percent of respondents had loans upto PKR 100,000. The percentage increase in revenue shows a declining trend as the loan size increases, however the trend was disrupted with the results of largest loans size strata, this anomaly needs to be further investigated in future studies with higher number of microenterprises with larger loan sizes. As per the results average annual revenue increased by PKR 1.6 million approximately (i.e. 59 percent) for loan size of PKR 150,001 to 500,000, whereas the increase was PKR 0.2 million (24 percent) for loan size of PKR 1 to 50,000, PKR 0.2 million (17 percent) for loan size of PKR 50,001 to 100,000 and PKR 0.1 million (9 percent) for loan size of PKR 100,001 to 150,000. This is illustrated in Table 4.

Table 4: Increase in revenue by loan size

	PKR 1 to 50,000	PKR 50,001 to 100,000	PKR 100,001 to PKR 150,000	PKR 150,001 to 500,000
Number of Borrowers	63	47	7	8
Current lending (Avg)	41,900	76,409	147,100	341,500
Revenue before loan (Avg)	1,020,300	1,378,300	1,209,200	2,730,750
Current lending (Total)	2,638,200	3,591,000	1,030,000	2,732,400
Revenue before loan (Total)	64,282,900	64,778,450	8,464,800	21,846,000
Revenue after loan (Total)	80,001,100	75,853,900	9,235,600	34,759,000
Revenue after loan (Avg)	1,269,900	1,613,900	1,319,400	4,344,900

Summing up the revenue analysis

Overall, we find that the microenterprises in our sample experienced revenue growth of 25 percent over one year. This increase varied across economic sectors, going as high as 51 percent in case of Livestock and Services sectors. However, the numbers also raise a red flag for agriculture, where we find that increase in annual revenue is less than the amount of borrowing, on average suggesting leverage is not generating the same types of returns for agri borrowers as compared to other sectors. There seems an interesting correlation between the gender of the microenterprise owner and the increase in revenue that requires further investigation.

Although the overall performance in terms of revenue growth seems promising over a year, analysis over multiple years will be helpful in assessing the consistency and sustainability of this trend. Furthermore, studies that can undertake causation analysis between microfinance and growth in revenue would enable us to develop an understanding of whether growth is coming through reinvestment of profits or injection of new equity or debt. Increasing level of indebtedness in the absence of commensurate increase in profitability could pose a threat to the sustainability of business operations for microenterprises.



2.3 EVIDENCE ON JOBS SUPPORTED IN MICROENTERPRISES

Pakistan has a youth bulge, with more than 69 percent of the population under the age of 30¹⁸ and more than 4 million young people are entering the job market every year. Estimates suggest that the economy needs to generate 1.5 - 2.5 million jobs¹⁹ annually to absorb these labor market entrants. Self-employment and entrepreneurship will be a critical contributor in meeting the job creation needs. Given that the bulk of the enterprises in Pakistan are micro, small and medium, the microfinance industry can play a pivotal role in growing these businesses, and in turn, support employment of millions.

In this section, we delve into the employment profile of microenterprises. Employment is analysed in terms of full-time²⁰ as well as seasonal workforce engaged in a microenterprise. We calculate total jobs supported by microenterprises as well as additional jobs created over a loan cycle and annually. When looking at 'jobs created', we consider the additional headcount as well as the increase in working hours of employees over one loan cycle and annually. The basis for jobs supported analysis is depicted in Figure 11.

Figure 11: Jobs supported analysis



¹⁸ Census of Pakistan, (2017) Pakistan Bureau of Statistics.

¹⁹ Najam, A. and Bari, F. (2017) Pakistan National Human Development Report 2017, UNDP Editorial - Development Matters.

²⁰ Full-time means at least 20 hours of work per week.

Employment profile of a microenterprise

On average, a microenterprise employed 2.6 persons on a full-time basis (full-time meaning at least 20 hours of paid work in a week). 40 percent of the employees were women. Youth i.e. persons within the age bracket 20-34 years made up 45 percent of the total workforce in the sample. Microenterprises in the survey also employed 0.65 seasonal workers per enterprise, which is equivalent to 0.2 employees on full-time basis. Thus, collectively, a microenterprise employed 2.6 persons on full-time basis.

**KEY FINDING –
EMPLOYMENT PROFILE**

On average, a microenterprise employs 2.6 persons on a full-time basis. 40% of these are women.

42 percent of the businesses employed only one person i.e. the entrepreneur him/herself. 20 percent hired one additional person whereas 32 percent of the businesses employed 3-5 people (including the owner). About 6 percent of the businesses had more than 5 full-time employees (Figure 12).

Figure 12: Employment profile of microenterprises



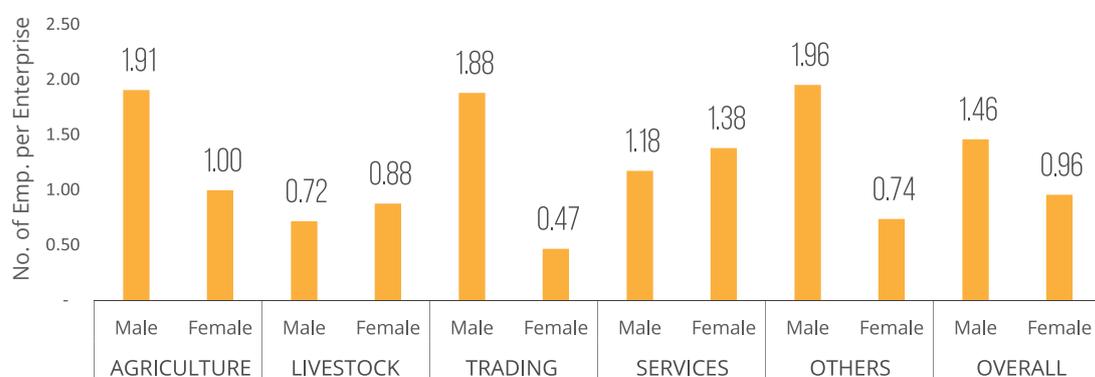
In terms of sector, highest number of full-time employees per business was observed in *Agriculture* (2.9 employees), followed by *Others* (2.7 employees). *Services* and *Trading* had 2.5 and 2.3 employees per business, respectively. *Livestock* was the lowest in terms of employees per business (at 1.6 employees) (Figure 13).

Figure 13: Average jobs supported per enterprise by economic sector



In terms of female employment, the least number of women per enterprise were employed in the *Trading* sector i.e. 0.5 per enterprise, whereas the maximum number were in the *Services* sector i.e. 1.4 per enterprise (Figure 14). In terms of ratio of male-female employment as a proxy for understanding which sectors are more female employment intensive, we find that *Livestock* sector has the most balanced male (M) to female (F) employment ratio, i.e. 1M to 1.3F, followed by *Services* sector, i.e. 1M to 1.2F. *Trading* has the least favorable female employment ratio, i.e. 1M to 0.3F, followed by *Others* (includes manufacturing) i.e. 1M to 0.4F. *Agriculture* sector enterprises employment ratio for the sample was 1M to 0.5F. Overall for the sample, the ratio is 1.5M to 1.0F employees per enterprise. The findings are indicative that females are more engaged in Livestock and Service sectors; however this needs to be further investigated in future researches.

Figure 14: Jobs supported by gender & sector



Analyzing the data from the perspective of the gender of the borrower, we find that women-led businesses employ more women. The 57 women-led microenterprises in our sample employed 101 women, whereas total women employed by 68 men-led microenterprises are 15. This data has important reveal when designing policy measures to push job growth for a specific gender type.

Increase in Head Count

The total number of full-time employees in our sample increased from 277 to 293 over one loan cycle (i.e. 14 months). Hence, 16 additional full-time jobs were created. On an annual basis this implies overall 14 additional jobs, or 0.11 additional jobs per microenterprise per annum (Figure 15). Additionally, some firms increased the number of seasonal workers hired during the year, which in full-time job equivalent comes to 5.1 additional full-time jobs (Figure 16). Hence, overall 19.1 full-time jobs were created in 122 microenterprises, or 0.15 additional jobs per enterprise over one year.

KEY FINDING – JOB CREATION

On average, 0.15 additional jobs were created per enterprise in a year

Figure 15: Jobs supported- overall (Avg.)

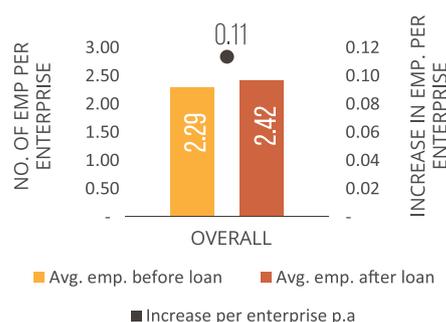


Figure 16: Jobs Supported-Sector wise (Avg.)



As shown in Figure 16 above, the highest increase in full-time jobs was seen in enterprises operating in the Services sector where 0.28 additional jobs per enterprise were created over one year. This was followed by 0.16 additional jobs per enterprise in *Agriculture* sector, 0.07 jobs per enterprise

in *Livestock* sector and 0.04 additional jobs per enterprise in *Others* sector. *Trading* sector showed a decrease of 0.10 jobs per enterprise in jobs supported. This was primarily because of closure of one microenterprise in the sample.

Increase in Head Count - by Type of MFP

MFBs financed businesses in the sample supported 2.5 jobs per enterprise and MFIs financed businesses supported 2.11 jobs per enterprise. Higher number of jobs is representative of larger size of enterprises typically funded by MFBs. However, the type of MFP seems to have little correlation with additional job creation in our sample. We find an increase of 0.11 and 0.10 additional jobs per microenterprise financed by MFBs and MFIs respectively (Figure 17).

Figure 17: Jobs supported by MFP

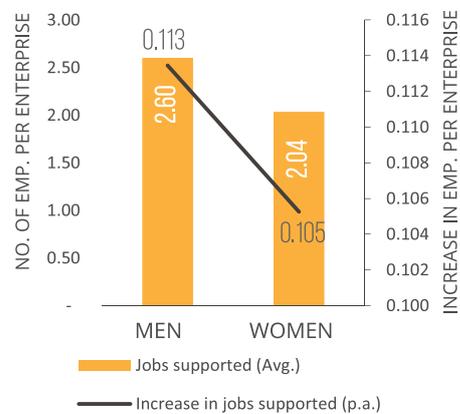


there was only minor difference between male versus female led enterprises in respect of additional job creation in our sample. We find an increase of 0.11 and 0.10 additional jobs per microenterprise led by male and female respectively (Figure 18).

Increase in Head Count - by Gender

Male-led businesses in the sample supported 2.6 jobs per enterprise and female-led businesses supported 2.04 jobs per enterprise. As discussed earlier in report, male-led enterprises in the sample were larger in size i.e. in terms of asset-base, revenue, loan size, as compared to female-led enterprises which substantiates higher number of jobs supported. However,

Figure 18: Jobs supported - Gender



Increase in Head Count – by Seasonal employment

Microenterprises in the sample also employed seasonal workers on a need basis. In total, 19 out of 125 enterprises in the sample hired seasonal workers, which comes to 16 percent of the overall sample. The total number of seasonal workers increased from 70 to 78 over a loan cycle in 19 enterprises. Annually this represents a total increase of 5.1 in full-time equivalent jobs. Overall, the increase in seasonal workers accounted for 0.04 full time equivalent jobs per enterprise, when taken for entire sample – only a marginal contribution to overall job creation. The average seasonal workers in sample microenterprises increased from 0.14 to 0.19 overall. The highest annualized increase in seasonal workers was in *Agriculture* sector i.e. 0.19 (from 0.23 to 0.42), followed by *Services* at 0.05 (from 0.1 to 0.4), *Livestock* sector also had an insignificant increase. *Trading* and *Others* sectors had no increase in seasonal workers.

Figure 19: Jobs supported - seasonal workers

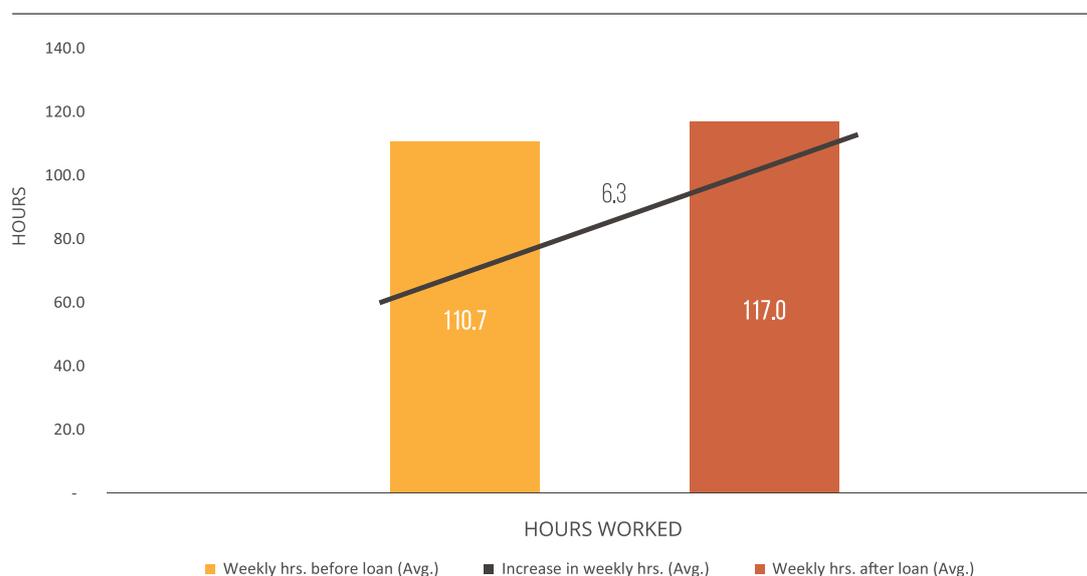


Increase in Hours Worked

Employment creation can also be measured in terms of the number of hours worked, as an alternative to looking at the change in direct headcount. In our sample, we find that the average number of hours worked per week increased from 110.7 to 117 per enterprise. This means addition of 6.3 hours per week (Figure 20) per enterprise. According to the full-time employment definition of DFID (i.e. more than 20 hours worked per week) this would translate into potential 38 additional job opportunities to be created. However, in terms of head count, we found that only 14 new jobs were created (discussion in above section). Even if a standard 40 hours week is considered, an addition of

766 hours per week implies creation of 19 full-time jobs annually. This implies that microenterprises prefer to increase the number of hours for existing employees rather than engage new hires.

Figure 20: Jobs supported - increase in working hours



Summing up the employment analysis

We find that, on average, a microenterprise directly supports 2.4 jobs, of which 40 percent are women. The seasonal workers added another 0.2 jobs to the employment profile of microenterprises, adding up to 2.6 full-time jobs per microenterprise in the sample. Over a year, on average, a microenterprise in our sample created 0.11 additional jobs (14 jobs in 122 microenterprises), whereas additional full-time equivalent jobs for seasonal workers comes to 0.04 per enterprise, taking the additional jobs total to 0.15. This excludes any unpaid family members that work in these enterprises. Using data to calculate a 'jobs multiplier', i.e. number of jobs supported per PKR 1.0 million in loans in microfinance, we estimate this to be 29.3 jobs supported for overall sample. Sector-level job multipliers are also shared in Table 5 below.

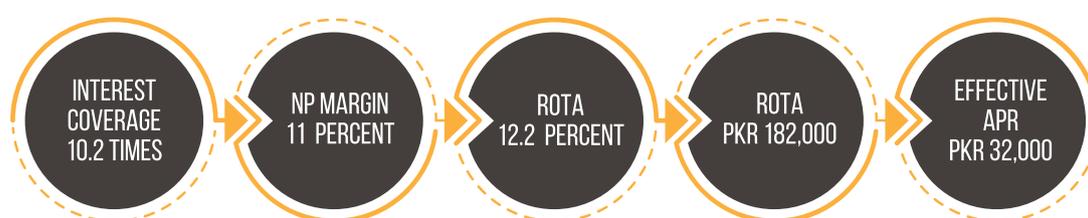
Table 5: Sector-level multipliers

	MFIS	MFBS	TOTAL SAMPLE
Agriculture	43.7	43.5	43.6
Livestock	28.2	19.6	21.2
Services	45.6	28.7	37.3
Manufacturing and Others	25.8	25.1	25.5
Trading	31.6	20.3	21.4
Study sample - Total	35.7	26.1	29.3

2.4 EVIDENCE ON AFFORDABILITY OF MICROFINANCE

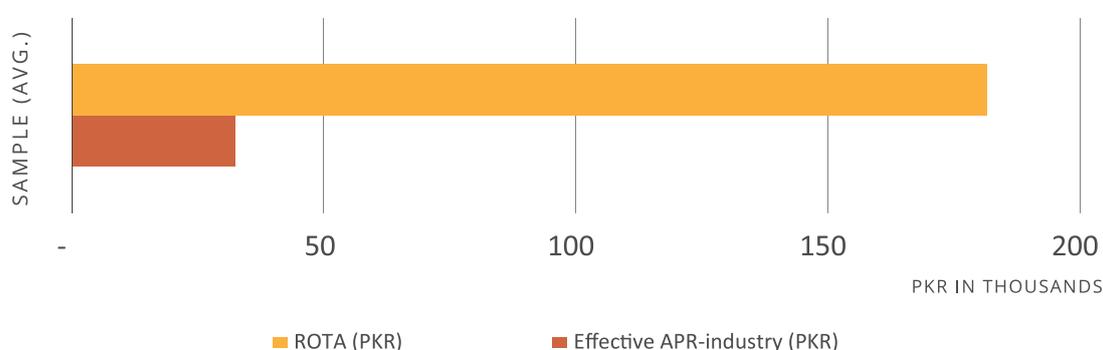
This section looks at the affordability of microfinance. This analysis has two important aspects, i.e. (i) the cost of debt financing to a microenterprise, and (ii) financial performance and net worth of a microenterprise. We use this analysis to answer the following question: *can borrowers afford the cost of microfinance in Pakistan?* The key indicators assessed to evaluate the affordability and financial performance include interest coverage ratio, net profit margins, return on capital employed, return on total assets and effective cost of financing for a microenterprise. The average topline numbers for the sample microenterprises are shown in Figure 21 below.

Figure 21: Microfinance loan affordability highlights



Based on the data collected for this study, the effective APR of the microfinance institutions participating in the study is 38 percent²¹. For the microenterprise sample in this study, this comes to about PKR 32,000 on an average loan of PKR 85,000. On the other hand, the average return on total assets (ROTA) for our sample is 12.2 percent, which equals PKR 182,000 in value terms. This suggests that microenterprises are able to generate sufficient returns even after meeting debt financing requirements.

Figure 22: Microfinance Industry - Average Effective APR vs. ROTA



²¹ See Annex C, Section E for details.

The average interest coverage of micro-enterprises in the study is 10.2 times and the average debt service ratio is 2 times. Debt equity ratio is 7 percent, indicating that the microenterprises studied are not highly leveraged. The average assets per microenterprise stand at PKR 1.5 million. The asset turnover, on average, is 1.1 times. Average monthly income of microenterprises is about PKR 13,000²² (and average distributable monthly income is PKR 41,000). The gross profit margin is 37 percent and the net profit margin is 11 percent. Financial cost is 4 percent of overall operating expenses, and 77 percent of the operating cost comprises salaries, wages and owners drawing. 14 out of the 125 microenterprises analysed had negative equity, where the assets reported by microenterprises were less than the liabilities. Table 6 below shows an average financial profile, including an abridged profit and loss statement, balance sheet and financial ratios, for the top five economic sectors based on our sample. The detailed sector level findings are discussed below.



²² The average monthly income was calculated by dividing net profit with 12. Salaries (which in most cases includes owner's salary), wages and owners drawing were subtracted to arrive at net profit. In case of microenterprises, it is difficult separate the entrepreneur from the enterprise, therefore, to arrive at the true distributable monthly income of the microenterprise adjusted net profit is also calculated by adding back salaries, wages and owners' drawings. It is only presented to give a reflection of true earning capacities of microenterprises.

Table 6: Key financial data

ENTERPRISE	AGRICULTURE	LIVESTOCK	TRADING	SERVICE	OTHERS	OVERALL (AVERAGE)
PROFIT AND LOSS STATEMENT						
Sales	451,000	661,000	1,629,000	1,237,000	3,962,000	1,588,000
Cost of Sales	110,000	212,000	983,000	575,000	3,146,000	1,005,000
Gross Profit	341,000	450,000	646,000	662,000	816,000	583,000
Operating Cost	280,000	227,000	566,000	402,000	624,000	420,000
Net Profit	61,000	223,000	80,000	260,000	192,000	163,000
BALANCE SHEET						
Current Assets	32,000	86,000	84,000	42,000	300,000	109,000
Fixed Assets	3,510,000	916,000	1,408,000	459,000	630,000	1,385,000
Total Assets	3,541,000	1,001,000	1,492,000	501,000	932,000	1,493,000
Liabilities	76,000	88,000	90,000	53,000	182,000	98,000
Equity	3,466,000	913,000	1,401,000	448,000	749,000	1,396,000
Total Liabilities and Equity	3,542,000	1,001,000	1,492,000	501,000	932,000	1,493,000
LOAN INFORMATION						
Loan tenor (months)	12	13	17	13	13	14
Loan Amount	67,000	75,000	118,000	69,000	97,000	85,000
Financial Costs	17,000	19,000	23,000	13,000	19,000	18,000
FINANCIAL RATIOS						
Average monthly income (PKR)	5,100	19,000	6,700	22,000	16,000	14,000
Average distributable monthly income (PKR)	20,000	33,000	46,000	48,000	55,000	41,000
Gross profit margin (%)	76%	68%	40%	54%	21%	37%
Net profit margin (5)	17%	37%	6%	22%	5%	11%
Financial cost as % of operating expenses (%)	6%	8%	4%	3%	3%	4%
Interest coverage ratio (times)	5	13	5	21	12	10
ROCE (%)	2%	26%	7%	61%	28%	13%
ROTA (%)	2%	24%	7%	55%	23%	12%
ROTA-PKR	78,000	242,000	103,000	273,000	211,000	182,000
Debt equity ratio (%)	2%	10%	6%	12%	24%	7%
Debt service ratio (times)	1	3	1	4	2	2
Asset turnover (times)	0.1	1	1	2.5	4	1



1. AGRICULTURE

Figure 23: Microfinance loan affordability highlights-Agriculture



Affordability analysis

Figure 24: Interest coverage & debt service

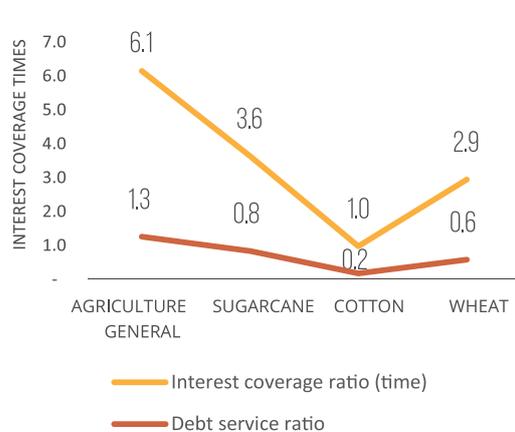
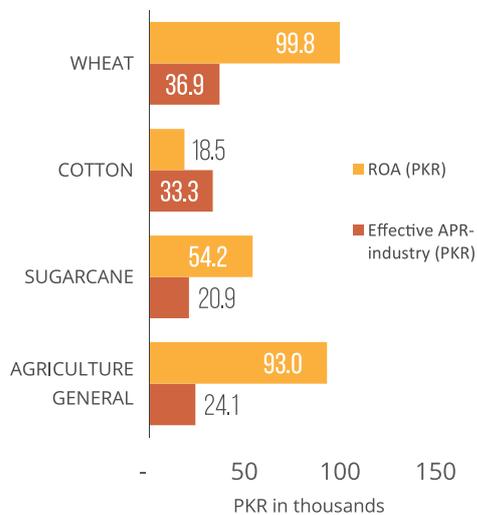


Figure 25: Agriculture ROTA vs. Effective APR



The sample included 22 agriculture sector microenterprises. Effective APR of the agriculture sector is PKR 25,000 (38 percent) on average, and the ROTA was PKR 78,000 on average for sample microenterprises. This indicates that a microenterprise in the agriculture sector is earning PKR 78,000 on its assets and paying PKR 25,000 as financial cost for debt financing. The standard deviation in the sector ROTA is +/- 164,785, with 32 percent of microenterprises having ROTA greater than the sector's ROTA. The interquartile range of ROTA of agriculture sector is 107,400 (Q1 7,200, Q3 114,600), the interquartile range is the range of the middle 50 percent of the data. In the case of cotton, the ROTA i.e. PKR 18,500 which is considerably lower than the effective financial cost of PKR 33,000 on average. This reiterates the importance of value added services along with conventional financing in the sector.

Table 7: Financial cost- Agriculture Sector

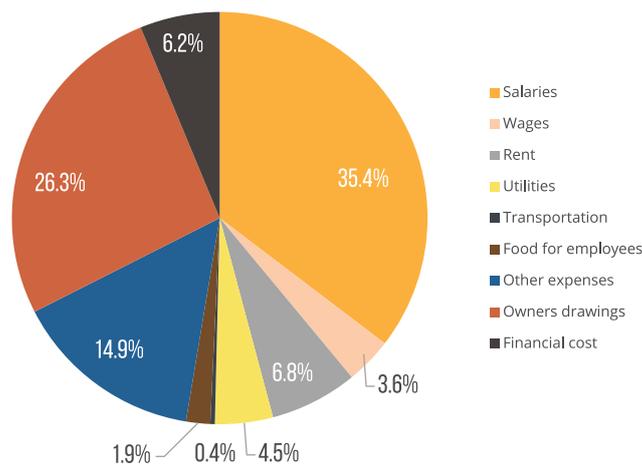
ENTERPRISE	AGRICULTURE GENERAL	SUGARCANE	COTTON	WHEAT	AGRICULTURE SECTOR (AVERAGE)
Effective APR- (%)	38.00%	38.00%	38.00%	38.00%	38.00%
Effective APR- (PKR)	24,000	21,000	33,000	37,000	25,000
ROTA (PKR)	93,000	54,000	18,500	100,000	78,000
Standard deviation in ROTA (PKR)	206,000	102,000	35,000	63,000	165,000

The interest coverage for the agriculture microenterprises in the sample is 4.5 times on average, meaning that in the agriculture sector, a microenterprise can afford to pay interest (mark-up) cost 4.5 times from its net profit. The highest coverage is for the agriculture-general category i.e. 6.5 times and the lowest is for cotton, at 1 time. A lower interest coverage ratio indicates a vulnerability of a business in terms of its ability to afford a loan. Debt service ratio for the agriculture sector microenterprises in the sample is around 1 time, with the highest being 1.25 times for agriculture-general and the lowest is 0.17 time for the cotton sub-sector. Based on above criteria, a closer look at agriculture and microfinance is recommended to understand the levels of risk and client vulnerability. As mentioned above, agriculture is a critical sector from the point of view of economic growth, poverty alleviation and employment generation. The microfinance stakeholders may need to better understand the dynamics of financing in the sector and how it can add value for the end clients.

Financial performance analysis

The average monthly income of the agriculture sector microenterprises in the sample varied between PKR negative 41 to PKR 6,500 with an overall sector monthly income of PKR 5,000 on average. The monthly income for the sector is considerably low. However, in the agriculture sector, for staple crops, the produce is sold in the market only if it is in excess of the household consumption needs. The average gross profit margin for sample microenterprises in the agriculture sector is 76 percent with a high of 79 percent for sugarcane and low of 58 percent for cotton. The average operating cost of agriculture microenterprises is about 62 percent of the revenue of which salaries (35.4 percent), wages (3.6 percent) and owners' drawing (26.3 percent) collectively constitute 65 percent (Figure 26). The net profit margin is 17 percent on average for the sample microenterprises in the sector and contrary to the gross profit margin, net profit margin is the highest for wheat at 34 percent and lowest for cotton at 4 percent. Average financial cost is 6.2 percent of the operating expenses of the sample microenterprises in the sector and is highest for wheat crop, i.e. 22 percent.

Figure 26: Agriculture sector operating cost



The average return on capital employed (ROCE) is 2.3 percent and average return of assets (ROTA) is 2.2 percent for the sample microenterprises in the sector. Land was noted to be the biggest asset by the agricultural enterprises in the sample at an average value of PKR 2.7 million. Without the effect of land, ROCE comes to 10 percent and ROTA comes to 9 percent on average for the sample. Average debt-equity ratio is 2.2 percent which means that debt is about 2.2 percent of the total equity. The sample microenterprises in the sector have very low leverage, suggesting that equity position is strong. The average asset turnover is 0.13 times which means that each rupee invested yields a revenue/ sale of PKR 0.13. Since the sample microenterprises in the sector are asset rich, the turnover is reasonable. The key financial data for the subsectors of agriculture sector enterprises in the sample is provided in the Annex F to the report.



2. LIVESTOCK

Figure 27: Microfinance loan affordability highlights-Livestock



Affordability analysis

Figure 28: Livestock: Interest coverage & Debt Service

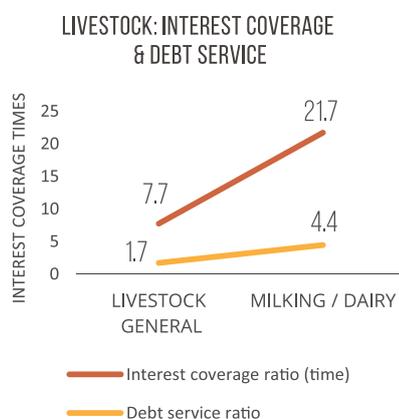
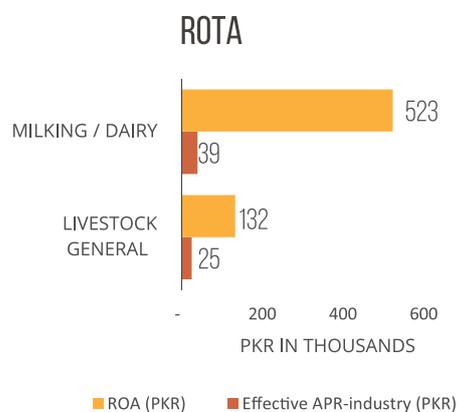


Figure 29: Livestock: ROTA Vs Effective APR



The sample included 25 livestock sector microenterprises. Average effective APR of the sector is PKR 29,000 (38 percent), and the ROTA is PKR 242,000. ROTA is significantly higher for milking/dairy microenterprises in the sample, suggesting that leveraging is more affordable for milking/dairy enterprises. APR is 7 percent of ROTA for milking/dairy microenterprises, and 19 percent of ROTA for general livestock in the sample. The standard deviation (SD) in the sector ROTA is +/- 499,663, with 29 percent microenterprises having ROTA greater than the sector's ROTA average. The interquartile range of ROTA for livestock is 130,380 (Q1 47,370, Q3 177,750). A significantly higher SD suggests that there is a greater disparity in the performance of different microenterprises in livestock sector. The interest coverage is 12.7 times on average for the sample microenterprises in the sector, which is encouraging, indicating that affordability is much higher compared with the agriculture sector. The interest coverage is almost three times higher for milking/dairy sector i.e. 21.7 times compared to 7.7 times for the livestock-general category for the sample microenterprises. Higher interest coverage ratio indicates a resilience of a business to leverage. Average debt service ratio for the livestock sector is 2.7 times, 4.4 times for the milking/dairy and 1.7 times for livestock-general microenterprises in the sample.

Table 8: Financial Cost - Livestock sector

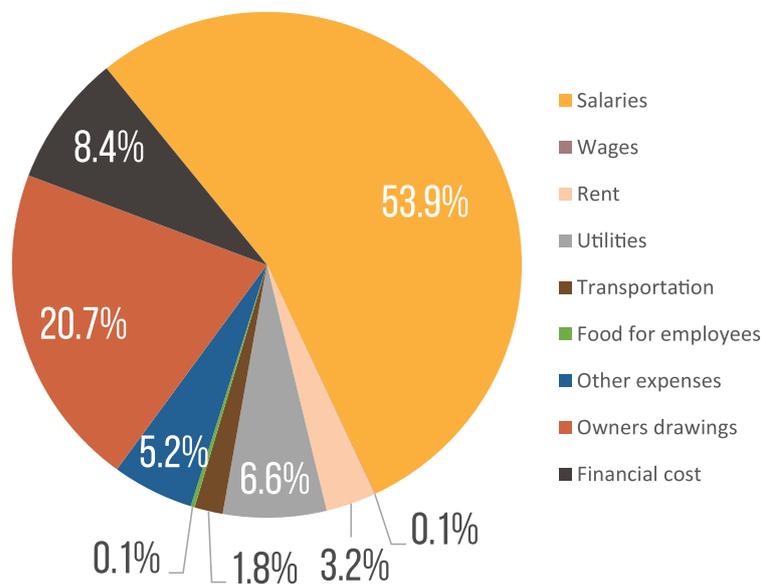
	Livestock General	Milking / Dairy	Livestock Total (Average)
Effective APR-industry (%)	38%	38%	38%
Effective financial cost-industry (PKR)	25,000	39,000	29,000
ROTA (PKR)	132,000	523,000	242,000
Standard deviation in ROTA (PKR)	239,000	842,000	500,000

Financial performance analysis

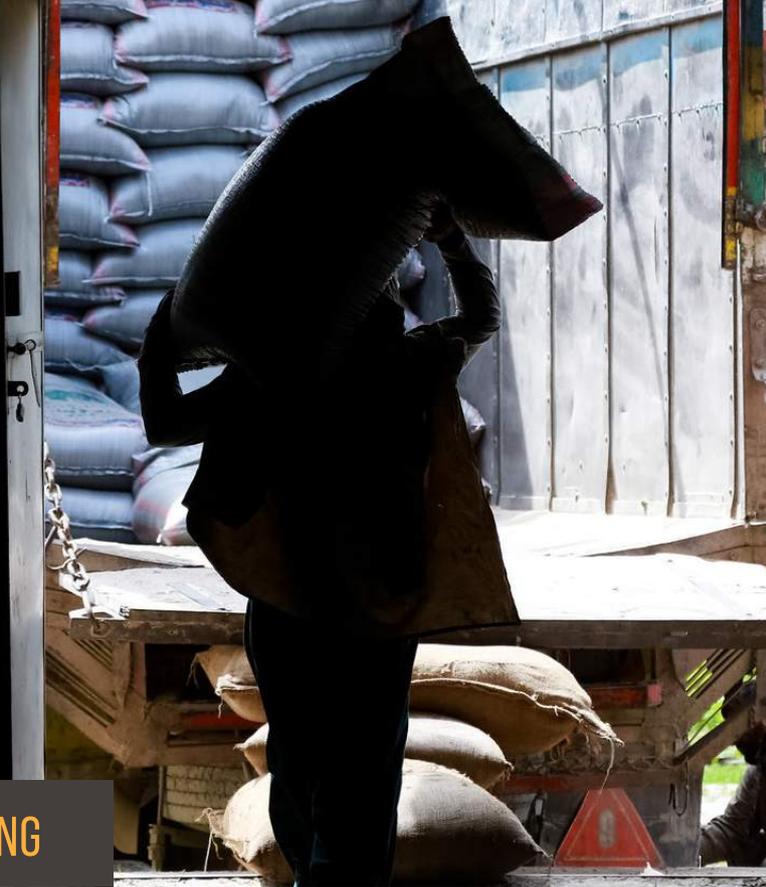
In the data shared by MFPs two subsectors were dominant in livestock sector, i.e. livestock-general and milking/dairy. Together, they represented more than 70 percent of client classifications in the livestock sector shared by MFPs. Average monthly income of the livestock sector microenterprises in the sample is PKR 18,500, and at the sub-sector level the average monthly income of livestock general microenterprises is PKR 9,600 and PKR 41,500 for milking/dairy microenterprises in the sample. The average gross profit margin for livestock sector in the sample is 68 percent, same for livestock general and milking/dairy subsectors. The average operating cost of the sample livestock microenterprises is about 34 percent of the revenue, of which salaries (53.9 percent) and owners'

drawing (20.7 percent) collectively constitute 75 percent, see Figure 30. The average net profit margin is 37 percent for the sample microenterprises in the sector, while the milking/dairy has a higher net profit margin of 42 percent and the net profit margin for livestock general is 31 percent. The average financial cost is 8 percent of the operating expenses of the sample microenterprises in the sector and is higher for livestock-general category.

Figure 30: Livestock sector operating cost



Overall average ROCE for the livestock sector is 26.4 percent, and at the sub-sector level it is 15.9 percent for livestock general microenterprises and 46.7 percent for milking /dairy microenterprises in the sample. Sector’s average ROTA is 24.1 percent, 14.6 percent and 42.2 percent for livestock general and milking/dairy enterprises, respectively. Like the agriculture sector, sample microenterprises in the livestock sector are also resource rich with the average value of fixed assets being PKR 0.91 million. Average debt-equity ratio is 9.6 percent. The livestock sector is also not highly leveraged, based on the sample surveyed. The average asset turnover is 0.66 times, for milking/dairy the asset turnover is 1.01 time, which is more than double for livestock general sector in the sample. Key financial data for livestock sub-sectors is summarized in the Annex F to the report.



3. TRADING

Figure 31: Microfinance loan affordability highlights-Trading



Affordability analysis

Figure 32: Trading: Interest coverage & debt service

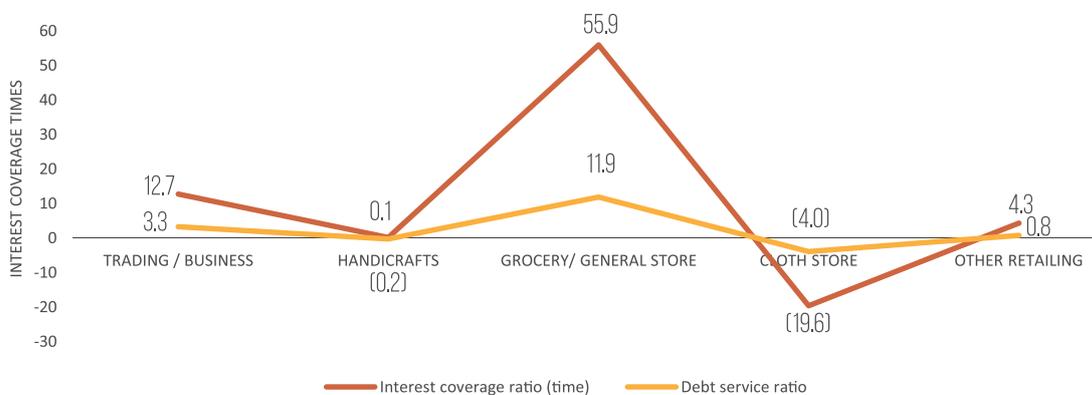


Figure 33: Trading: ROTA Vs Effective APR


The sample included 19 trading sector microenterprises. Average effective APR of the sample microenterprises in the sector is PKR 45,000 (38 percent) at an average loan size of PKR 118,000, and the ROTA is PKR 103,000. ROTA is significantly higher for grocery/general stores, this suggests that leveraging is more affordable for grocery/general stores. The ROTA is significantly lower for cloth stores i.e. PKR -756,133, which makes it a highly risky business to finance. The standard deviation (SD) in the sector ROTA is +/- 711,157, with 53 percent of sample microenterprises having ROTA greater than the sector's ROTA average. The interquartile range of ROTA for trading sector is 276,000 (Q1 88,800, Q3 364,800). A significantly higher SD suggests that there is a greater incongruence

Table 9: Financial Cost – Trading sector

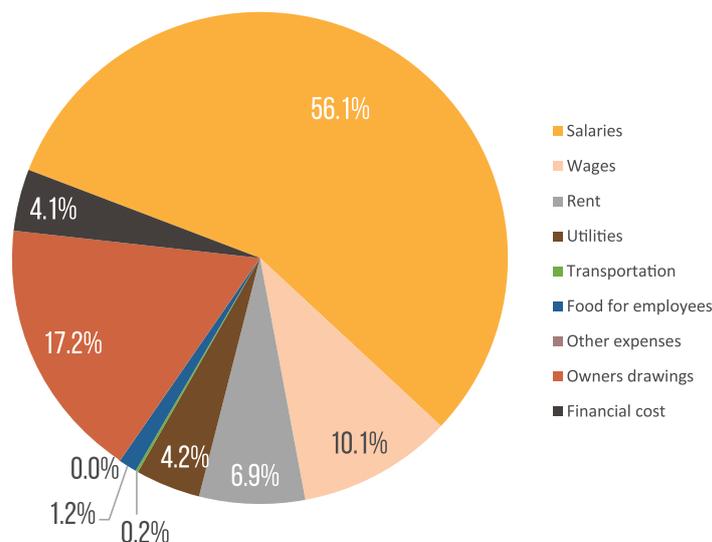
	Trading / Business	Handicrafts	Grocery/ General Store	Cloth Stores	Other Retailing	Trading Total (Average)
Effective APR-industry (%)	38%	38%	38%	38%	38%	38%
Effective financial cost-industry (PKR)	36,000	80,000	30,000	82,000	27,000	45,000
ROTA (PKR)	244,000	-30,000	1,200,000	-756,000	65,000	103,000
Standard deviation in ROTA (PKR)	270,000	-	-	1,500,000	34,000	711,000

in the performance of different microenterprises in trading sector. The interest coverage for the sample microenterprises in the sector is 4.9 times on average. The highest interest coverage is for the grocery/general stores category, i.e. 55.9 times and the lowest is for cloth stores category, i.e. -19.6 times. At the outset, this may indicate that cloth stores cannot afford to pay the financial cost of the debt. However, a deeper analysis of cloth stores revealed that 1 out of 3 stores included in the sample was in loss. The other two had an average net profit margin of 33 percent and interest coverage of 10 times. Debt service ratio for the sample microenterprises in the trading sector is 1.1 times, with the highest being 11.3 times for the grocery/general stores and lowest is -4 times for the cloth stores.

Financial performance analysis

The subsectors for sample microenterprises in the trading sector include trading/business (12), handicrafts (1), grocery/general stores (1), cloth store (3), and other retailing stores (2). The average monthly income of the trading sector is PKR 7,000, whereas the average monthly income for trading microenterprises in the sample varies between PKR (-66,000) to PKR 99,000. Average gross profit margin for sample from trading sector is 40 percent, with a high of 67 percent for grocery/general store and low of 35 percent for trading/business sector. The average operating cost of the trading sector is about 35 percent of the revenue, collectively salaries (56.1 percent), wages (10.1 percent) and owners’ drawing (17.2 percent) make-up 83 percent of the sector operating cost, see Figure 34. The net profit margin is 6 percent on average for the sample microenterprises in the sector, the highest net profit margin being 60 percent for grocery/general stores and lowest margin being -70 percent for cloth stores. Average financial cost is 4 percent of the operating expenses of the sample microenterprises in the sector and is highest for handicrafts business.

Figure 34: Trading sector operating cost



The Average Return on Capital Employed (ROCE) is 7.4 percent and average Return on Total Assets (ROTA) is 6.9 percent for the sample from the sector. Like agriculture and livestock sectors, land is noted to be the prime asset of the trading enterprises particularly in trading/business and other retailing subsectors in the sample, at an average value of PKR 1.3 million. Average debt-equity ratio is 6.4 percent which means that debt is about 6.4 percent of the total equity. The sector has very low leverage on average, however the amount of debt is significantly higher compared to the equity in case of handicraft and grocery/general stores which indicates that they are risky businesses with very high leverage. The average asset turnover is 1.09 times for sample microenterprises in the sector, which means that each rupee invested yields a revenue/sale of PKR 1.09. Since the sample included only one business for handicraft and grocery/general stores each, and two and three businesses for other retailing and cloth stores respectively, it is more fitting to consider the trading/business subsector as an average for the sample microenterprises in the sector. The other subsectors can provide information for the best- or worst-case scenarios for that subsector because of the limited number of enterprises included in the study. The key sub-sector level data is in the report Annex F.



4. SERVICES

Figure 35: Microfinance loan affordability highlights-Services



Affordability analysis

Figure 36: Services: Interest coverage & debt service

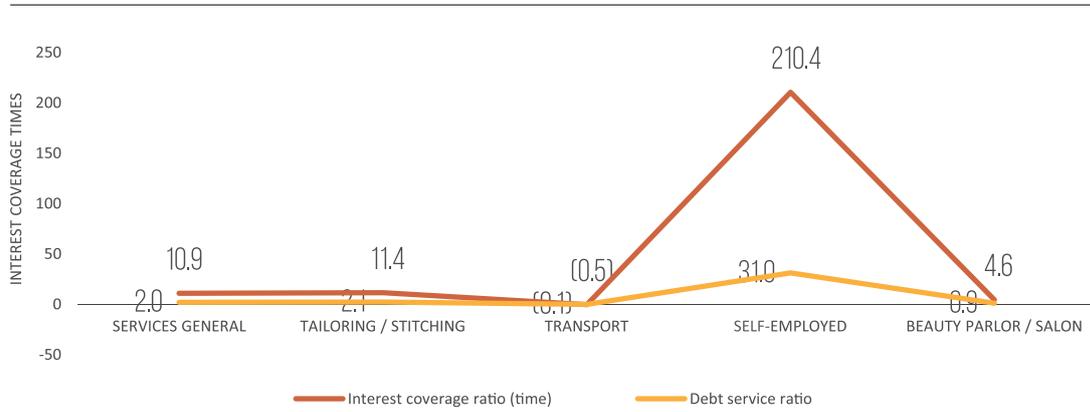
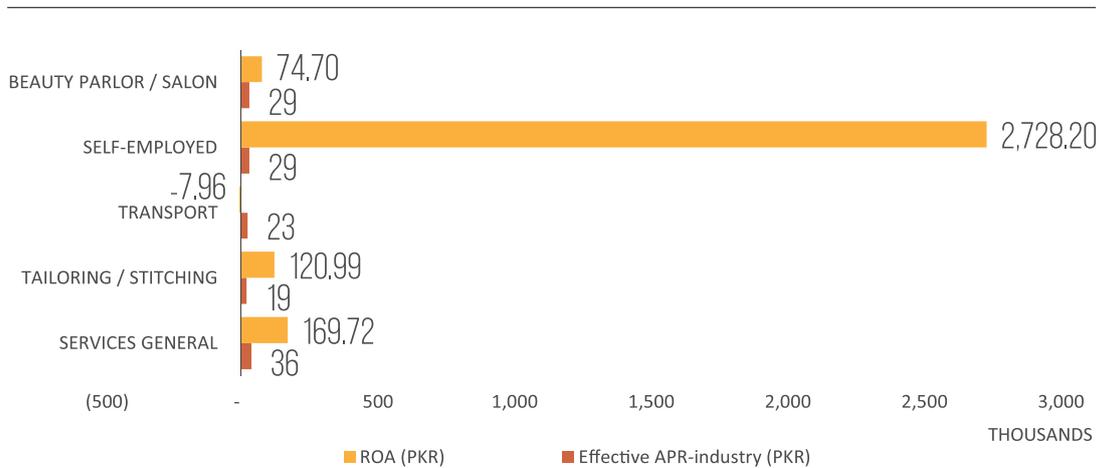


Figure 37: Services: ROTA Vs Effective APR



The sample included 34 services sector microenterprises. Average effective APR of the sample microenterprises in the sector is PKR 26,000 (38 percent), at an average loan size of 69,000, and the ROTA is PKR 273,000. ROTA is significantly higher for the self-employed and negative for transport sector in the sample. The Standard Deviation (SD) for the sector ROTA is +/- 668,973, with 24 percent of microenterprises having ROTA greater than the sector's ROTA average. The interquartile range of ROTA for services sector is 244,860 (Q1 13,140, Q3 258,000). The interest coverage for the sample microenterprises in the sector is compellingly high, at 20.8 times on average. The highest interest

Table 10: Financial Cost - Services sector

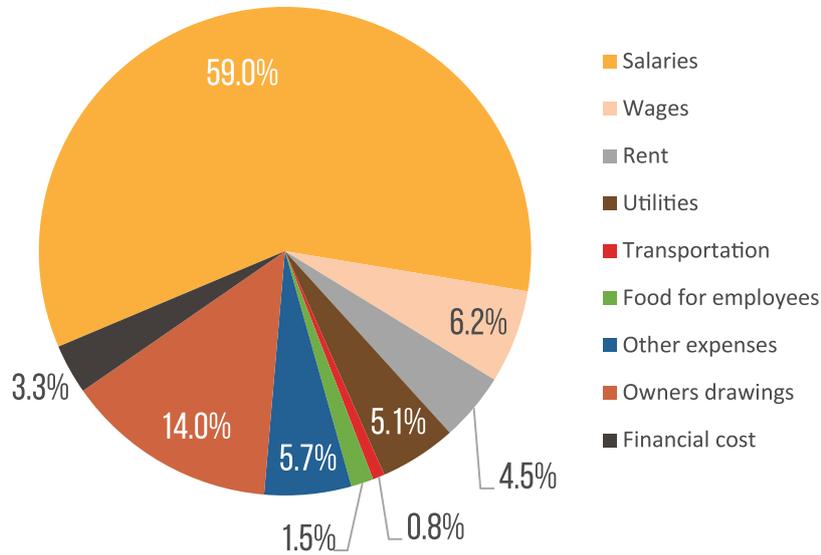
	Services General	Tailoring/ Stitching	Transport	Self Employed	Beauty Parlor / Salon	Services Total (Average)
Effective APR-industry (%)	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%
Effective financial cost-industry (PKR)	36,000	19,000	23,000	29,000	29,000	26,100
ROTA (PKR)	170,000	121,000	-8,000	2,700,000	75,000	273,000
Standard deviation in ROTA (PKR)	304,000	133,000	18,000	775,000	228,000	670,000

coverage is for the self-employed i.e. 210.4 times and the lowest is for transport that is -0.5 times. 2 out of 3 transport microenterprises in the sample were in net loss. Average debt service ratio for the sample microenterprises in the services sector is also the highest, i.e. 3.7 times, self-employed can service the debt 31 times and rank the highest while transport businesses have lowest debt service capability at -0.1 times.

Financial performance analysis

In the sample services sector's sub-sectors include service-general (11), tailoring (15), transport (3), self-employed (2), and beauty-parlor/salon (3). Average monthly income of the services sector is PKR 21,000; the highest average monthly income among the five sectors included in the study. The spread between the highest and the lowest average monthly income in sub-sector services microenterprises in the sample is PKR 1,600 to PKR 226,000. Average gross profit margin for sample microenterprises in the services sector is 54 percent, with a high of 84 percent for beauty-parlor/salons and low of 38 percent for the transport subsector. Operating expenses are 33 percent of revenue, and 79 percent of operating expenses are salaries (59 percent), wages (6.2 percent) and owners' drawings (14 percent). Average net profit margin is 22 percent for the sample microenterprises in the sector; the highest net profit margin is 32 percent for the self-employed and lowest net margin is -2 percent for transport. Average financial cost is 3 percent of the operating expenses of the sector in the sample and is highest for transport category, i.e. 5 percent.

Figure 38: Services sector operating cost

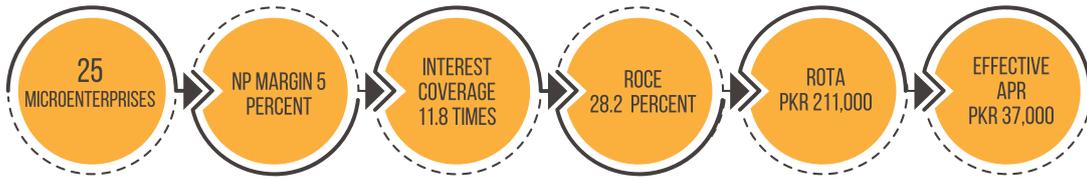


Average Return on Capital Employed (ROCE) is 61 percent for the sample microenterprises in the sector, at the sub-sector level ROCE on average spreads between lowest of 11.2 percent to highest 87.4 percent. Average Return on Total Assets (ROTA) is 54.5 percent for the sector. ROCE and ROTA for the sample microenterprises in this sector are also the highest among the sectors in the study. Average debt-equity ratio is 11.9 percent, the optimal maximum leverage considered in commercial banking is 40 percent. This means that the sector has the capacity to increase its leverage, since the margins are also promising. The average asset turnover is 2.47 times which signifies that each rupee invested yields a revenue/sale of PKR 2.47; the second highest turnover among the sample microenterprises in the sectors of the study. The key financial data for sub-sectors is in the Annex F.



5. OTHERS (INCLUDES MANUFACTURING)

Figure 39: Microfinance loan affordability highlights-Others



Affordability analysis

Figure 40: O & M: Interest coverage & debt service

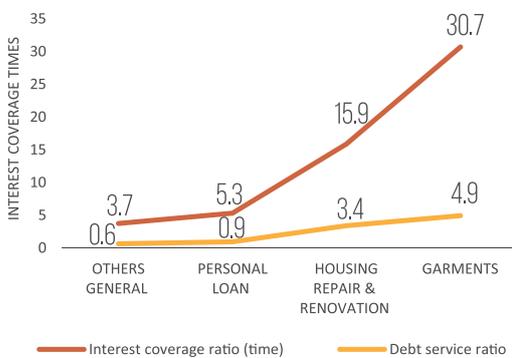
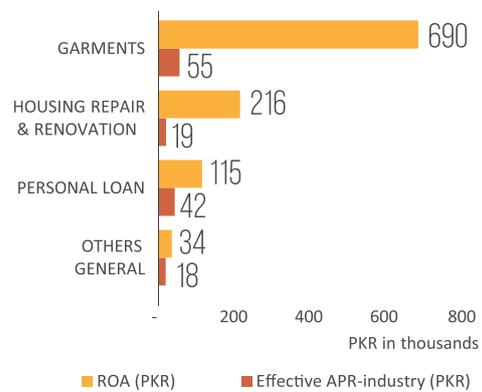


Figure 41: O & M: ROTA Vs Effective APR



The sample included 25 other microenterprises that may not be classified in any major category. Average effective APR of the sample microenterprises in this category is PKR 37,000, 38.4 percent at an average loan size of PKR 97,000, and the ROTA is PKR 211,000. ROTA is highest for garments and lowest for others-general in the sample. The standard deviation (SD) in the sector ROTA is +/- 789,988, with 28 percent of microenterprises in the sample having ROTA greater than the sector's ROTA average. The interquartile range of ROTA for others sector is 198,345 (Q1 20,805, Q3 219,150). The interest coverage for the sample microenterprises in the sector is high, at 11.8 times on average. The highest interest coverage is for the garments sub-sector, at 30.7 times and the lowest is 3.7 times for others-general. Average debt service ratio for the sample microenterprises in the others & manufacturing sector is also the highest, i.e. 2.2 times. Garment microenterprises can service the debt 4.8 times while others-general microenterprises have lowest debt service capability at 0.7 times.

Table 11: Financial Cost - Other sector

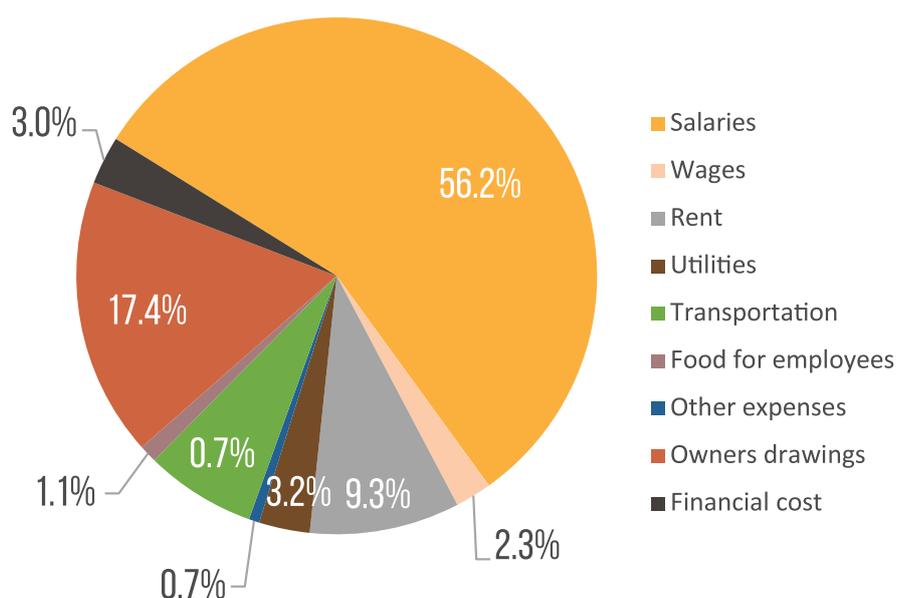
	Other-General	Personal Loan	Housing Repair & Renovation	Garments	Manufacturing & Others Total (Average)
Effective APR-industry (%)	38%	38%	38%	38%	38%
Effective financial cost-industry (PKR)	176,400	42,200	19,000	55,000	37,000
ROTA (PKR)	33,900	114,700	216,000	681,000	211,200
Standard deviation in ROTA (PKR)	47,000	314,200	-	1,760,700	781,000

Financial performance analysis

Subsectors in Others sector includes others-general (7), personal loan (12), housing repair & renovation (1), and garments (5) in the sample. Average monthly income of the services sector microenterprises is PKR 16,000; the second highest average monthly income among the sectors studied. For the sub-sectors of Others sector, average monthly income of microenterprises is between PKR 2,000 to PKR 56,000 approximately. Average gross profit margin for the sample microenterprises in the Others category is 21 percent, with a high of 67 percent for others-general and low of 17 percent for garments subsector. Operating expenses are 16 percent of revenue, and 76 percent of total operating expenditure comprises of salaries (56.2 percent), wages (2.3 percent) and owners' drawings (17.4 percent). Average net profit margin is 5 percent for the category, with

the highest net profit margin being 22 percent for housing repair and maintenance and lowest being 3 percent for personal loans. 11 out of 12 personal loans were used for business purposes. Average financial cost is 3 percent of the operating expenses and is highest for housing repair and maintenance.

Figure 42: O & M operating expenses



Average Return on Capital Employed (ROCE) is 28.2 percent for the sample microenterprises in the Others sector. ROCE of microenterprises at sub-sector level vary from 10 percent to 85.1 percent on average. Return on Total Assets (ROTA) is 22.7 percent for the sector on average. ROCE and ROTA are also the second highest among the sectors studied, just after the services sector. Average debt-equity ratio is 24 percent; the highest leverage among the sectors in the study and below risky levels. The average asset turnover at 4.25 times, i.e. PKR 4.25 in revenue for each rupee invested is the highest asset turnover among the sectors of the study. Key financial data is in the report Annex F.

6. CONCLUSION

Based on our analysis, the financial cost of debt financing is found to be affordable for the sample microenterprises, based on interest and debt coverage ratios for the sample microenterprises, therefore the response for question posed in hypothesis is confirmatory. Although the perception remains that it is an expensive source of credit, the alternatives are limited (i.e. personal savings, family

and friends, and vendor credit) and comparatively more expensive. The sample microenterprises have promising gross and net profit margins. Salaries, wages and owner's drawing are the major portion of the operating cost of microenterprises suggesting that microenterprises are generating income for the borrowers and for the employees engaged with microenterprises. It corroborates the findings of supporting employment presented earlier in the report. The next section of the report explores the diversion of microfinance towards consumption as opposed to business.

2.5 EVIDENCE ON LOAN USAGE FOR BUSINESS VERSUS CONSUMPTION PURPOSE

There has been an on-going debate on the usage of microloans, given the smaller size they are perceived to be used for consumption purpose rather than being utilized for productive purpose in the microenterprises. There is no illegality or bar on consumer financing; commercial banks operate consumer financing as a specialized market segment and have products tailored to the needs of this market niche. Hitherto, consumer financing was not considered a distinct market segment by the microfinance sector at large. As the core premise for microfinance was to serve the bottom of pyramid, who otherwise remain unserved by the formal financial sector, to allow them to engage in income generating economic activities. However, there are many factors which can lead to diversion of a loan to consumption purpose such as smaller size, inadequacy of loan for business purpose, emergencies and unforeseen circumstances and legitimate consumption needs of low-income people which remain unserved. We looked at the usage of loans obtained by the sample microenterprises to see whether microfinance loans were used for personal or household consumption. This was done by analyzing the purpose of the loans, usage of loan against the purpose identified, adequacy of loan amount for the purpose, other sources of finance in case of insufficient loan amount and usage of excess amount in case of surplus loan amount.

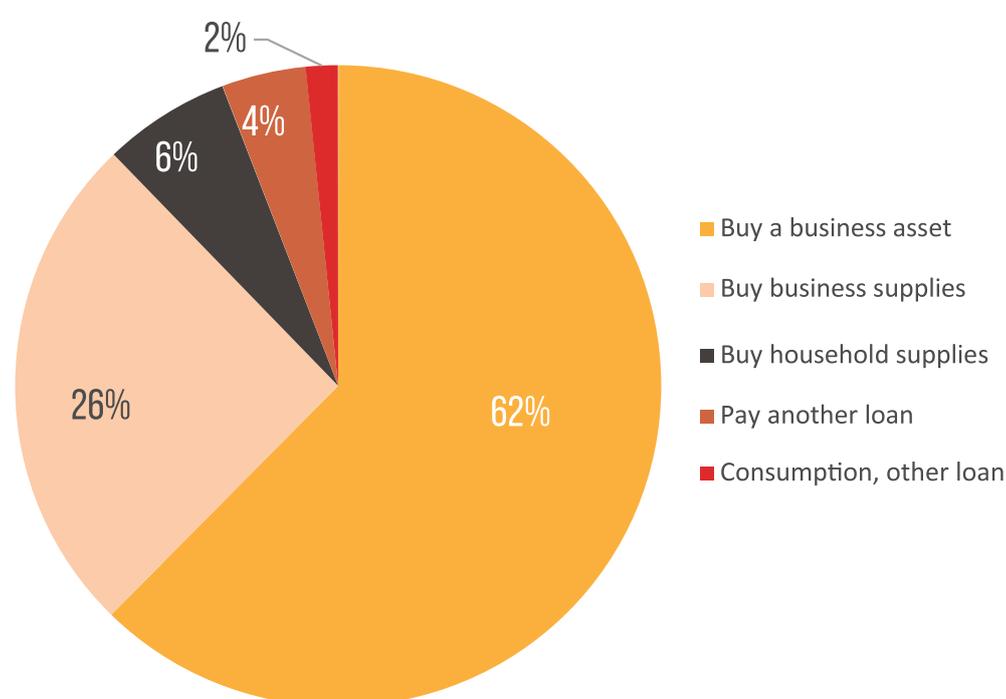


KEY FINDING – LOAN USAGE
12.2 percent of loans (PKR)
were used for consumption
purpose

In the sample microenterprises, 12.2 percent of loans (PKR) were used for consumption purpose. Business loans were categorized as loans for buying business assets (e.g. equipment, furniture, etc.) and buying business supplies (e.g. raw material, tools, etc.), and consumption usage was manifested as buying household supplies (e.g. groceries, food, etc.), other consumption loans (e.g. household assets, medical expense, etc.) or paying back other loans. We find that about 12.2 percent of the loan amount (value in PKR) is used for consumption purpose by the borrowers in our sample.

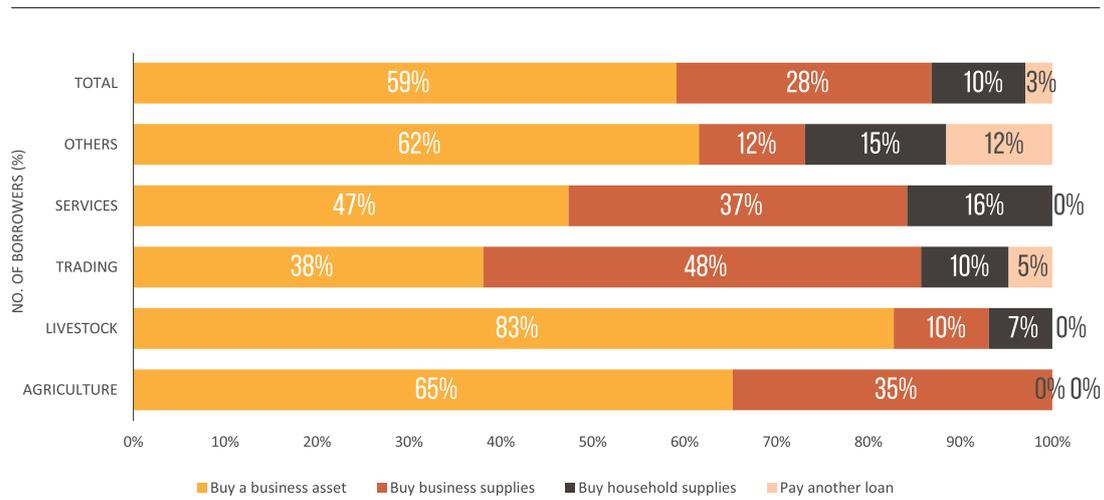
Purpose of Loan

Figure 43: Loan usage in PKR



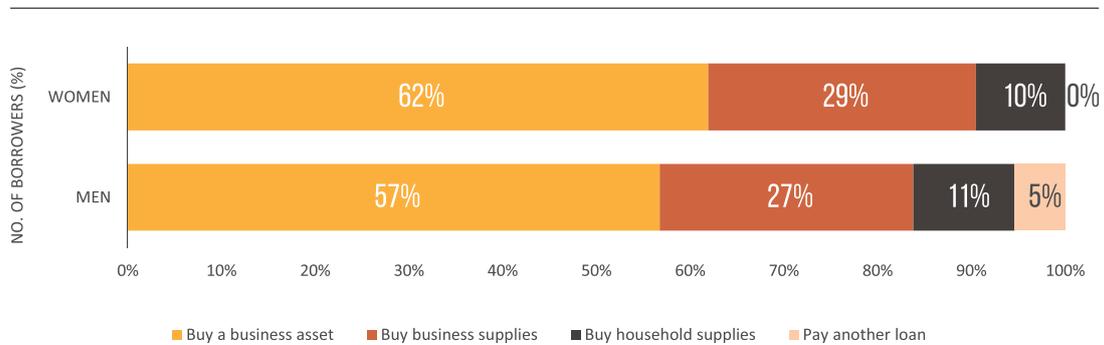
In terms of stated purpose, 87 percent loans (number of loans) were obtained for business purpose. The highest concentration of borrowers obtaining loans for consumption lies in Others sector, at 26.9 percent, followed by Services at 16.9 percent. On the other hand, Agriculture sector borrowers did not report any incidence of loans for consumption. In terms of loan amount, overall, 62.3 percent of the loan amount was used to buy business assets and 25.5 percent for business supplies i.e. working capital (Figure 44).

Figure 44: Purpose of loan



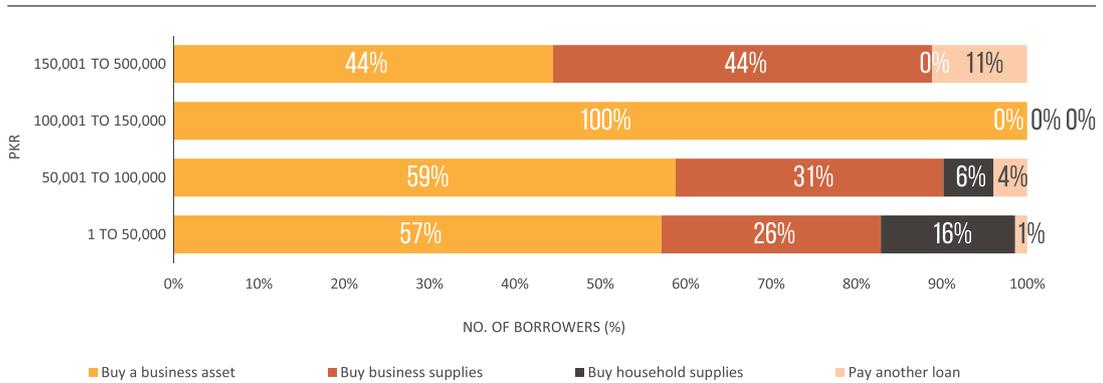
Amongst respondents, women reported consumption loans less than men, i.e. only 9.5 percent women borrowed for consumption purpose compared to the total of 16.2 percent of men. Household supplies were the only consumption use identified by women, whereas for men, paying off other loan was another notable reason.

Figure 45: Purpose of loan by gender



Use of loan for consumption purposes was more common in smaller loan sizes than in the larger loan sizes (Figure 46). About 17 percent borrowers with loan amounts less than PKR 50k, and 10 percent of borrowers with loan size between PKR 50k-100k used the loan either partially or wholly for consumption purposes. None of the borrowers with loan size between PKR 100k-150k reported other than business usage, and all of the loans in this loan size range were used for purchase of business assets. Only one incident of consumption was reported for the PKR 150k+ category, where a personal loan was obtained upfront. This suggests that when the loan amount is not according to the need or the purpose for which financing is acquired, there is a higher likelihood of it being diverted towards consumption.

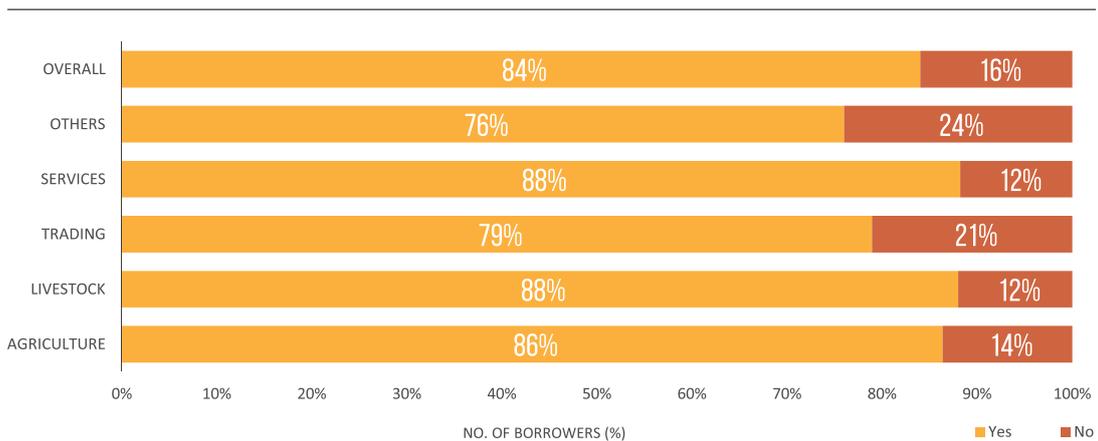
Figure 46: Purpose of loan by loan size



Adequacy of Loan Amount

Overall 84 percent of respondents said that the amount of loan was adequate for their needs whereas 16 percent felt that it was less than their requirement. The highest level of dissatisfaction was in the *Others sector*, where nearly a quarter of borrowers (24 percent) felt that amount was not enough. *Trading sector* followed where 21 percent borrowers felt that the loan amount was not appropriate. In *Agriculture sector*, the dissatisfaction was found amount 14 percent borrowers, whereas 12 percent borrowers in *Livestock* as well as *Services* sectors reported dissatisfaction with loan amount (Figure 47).

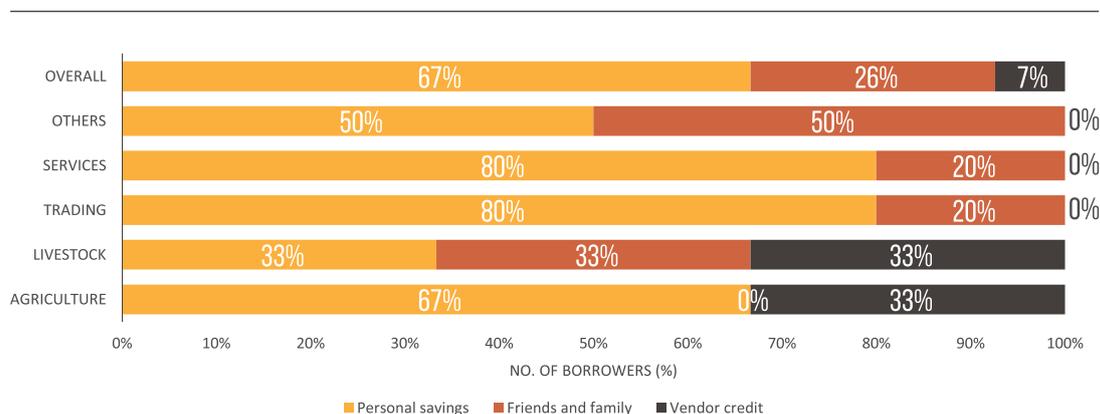
Figure 47: Loan amount appropriateness



A marginally higher proportion of men (21 percent) were dissatisfied with the loan amount compared to women (11 percent) despite the fact that loan size for men are much higher. The average loan size for male borrowers in our sample was PKR 99K whereas that for female borrowers was PKR 57K, i.e. only 58 percent of the average amount being lent to men. Similarly, proportionately more MFI clients (19 percent) were dissatisfied with the loan amount compared to MFB clients (13 percent). This could be because the average loan size for MFB served microenterprises (PKR 97K) is 65 percent higher than the average loan size for MFI served microenterprise (PKR 59K). Another trend observed in the sample was that the dissatisfaction from the loan amount increased when compared to previous loan cycle, this could primarily be due to price inflation. From the loan size perspective, borrowers with relatively smaller loan size are more dissatisfied and their consumption usage was also higher.

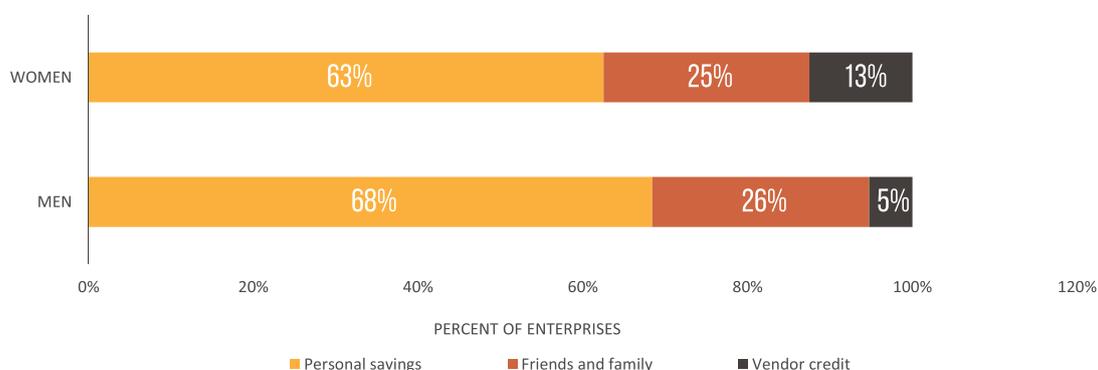
Those who found the loan amount inadequate supplemented their funds from other sources, including personal savings, friends and family and vendor credit. Overall 67 percent of microenterprises who need additional funding to fulfill their needs use personal savings as an alternate financing source, 26 percent borrow from friends and family, and about 7 percent use vendor credit. The sources are not mutually exclusive. In *Services* and *Trading sector* about 80 percent borrowers relied on personal savings and the remaining 20 percent was met through borrowing from friends and family. In *Others* sector equal reliance was placed between personal savings and friends and family borrowing. Vendor credit is seen as a popular choice in *Agriculture* and *Livestock* sectors besides personal savings and friends and family borrowing in case of *Livestock* sector (Figure 48).

Figure 48: Other sources of borrowing



Men rely proportionately more on personal savings than women, who rely proportionately more on vendor credit (Figure 49). 68 percent men rely on personal savings compared to 63 percent women, whereas, only 5 percent men reported vendor credit compared to 13 percent women using vendor credit as an alternate source of funding. Usage of friends and family borrowing was reported at 26 and 25 percent among men and women, respectively.

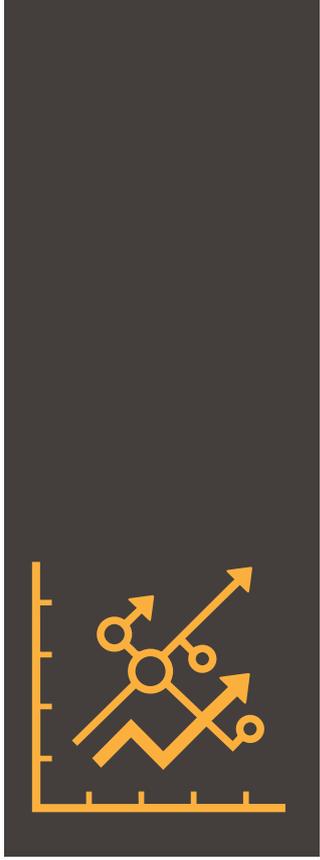
Figure 49: Other sources of borrowing by gender



Summing up: Loan Usage

We find that microfinance loans are used for consumption purposes, but the incidence is not high. Loans were utilized for consumption purpose where the loan was obtained with the intention of utilizing for consumption purpose, the loan amounts were smaller, or the loan amount not sufficient for the actual purpose of the loan. Although the reasons behind consumption usage were not the purview of this study, they do provide insights that can be further investigated to look at consumption as a risk or an opportunity for product development. It can either lead to reassessing the adequacy of existing products to make them more realistic to market needs or recognizing consumption usage as a new niche and respond with new products.





RECOMMENDATIONS FOR FUTURE RESEARCH



3. RECOMMENDATIONS FOR FUTURE RESEARCH

Most research on impact of microfinance in Pakistan has focused on understanding linkages with socio-economic characteristics of the household, such as spending on health and education, increase in income and assets of the family, improvements in women's economic conditions etc. Less attention has been paid to the business i.e. what happens to the number of people employed in the enterprise when a loan is taken, how is the money allocated within a business to achieve growth in turnover and margins, what does the growth trajectory of a typical microenterprise look like and are there limits to expansion (do microenterprises graduate to become SMEs).

This study aims to make a contribution to literature that looks at the dynamics of a microenterprise from a financial perspective. Our analysis shows that microenterprises do grow as seen by the increase in their annual revenue, they support employment (including employment for women and youth) and mostly use the loans for productive purposes. The process of undertaking the study and its findings have raised further questions that can be looked into through future research. Some key areas for investigation are:

- Graduation of microenterprises to SMEs: If one of the goals of microfinance is to help businesses grow, it is important to study the growth pathways for microbusinesses. Which businesses tend to graduate and what are the key drivers of this growth?
- The gender effect on business performance: We find that women-led businesses tend to be smaller than those led by men. However, in terms of growth, women-led microenterprises in our study outpaced the men-led businesses. Future research could look at the gender effects on growth of a business. We also find that women led businesses support more jobs for other women than men led businesses – this could be explored further as it may have policy implications when it comes to creating jobs for women and bringing them into the fold of labor force.
- Further analysis is required to understand the relationships between jobs supported by microenterprises and the asset base, loan size and revenue of enterprise.
- The revenue growth of microenterprises should be further studied methodically and frequently to analyze sustainability in revenue growth, that will enable microfinance industry to venture successfully into medium term financing and product specialization.
- There is a need for a careful analysis of sector specific product needs, as some sectors, especially agriculture, can improve performance if innovation is encouraged and products are customized, e.g. value addition financing.
- Based on the loan utilization insights from the study, further research should be conducted to explore the potential of consumer financing as a new niche market by MFIs.



BIBLIOGRAPHY

Armendáriz de Aghion, B. and Morduch, J. (2010) *The Economics of Microfinance*, 2nd edn. Cambridge: MIT Press.

Banerjee, A. et al. (2014) "The miracle of microfinance? Evidence from a randomized evaluation". <https://economics.mit.edu/files/5993> [Accessed on 10 June 2019]

Caroline R., GIZ and BMZ (2015) *Micro and small enterprises as drivers for job creation and decent work*, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

Demirgüç-Kunt, A. et. al. (2018) *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*, Washington, DC: World Bank.

Duvendack, M. et. al. (2011) *Systematic Review: What is the evidence of the impact of microfinance on the well-being of poor people?* EPPI-Centre, Social Science Research Unit, Institute of Education, University of London. https://www.givedirectly.org/pdf/DFID_microfinance_evidence_review.pdf [Accessed on 10 June 2019]

Gallup Pakistan (2003) *PPAF Micro Credit Financing: Assessment of Outcomes*, Pakistan Poverty Alleviation Fund.

Ghanghro, A. and Khan, N. (2015) "Estimating Potential Market Size for Microcredit in Pakistan", PMN MicroNOTE Issue 27.

Gopaldaswamy, A.K., Babu, M.S. and Dash, U. (2016) *Systematic review of quantitative evidence on the impact of microfinance on the poor in South Asia*, London: EPPI-Centre, Social Science Research Unit, UCL Institute of Education, University College London.

Government of Pakistan (2018) *Economic Survey of Pakistan (2017-18)*, Ministry of Finance, Pakistan.

Haq, A. and Khalid, Z. (2010) *Impact of Microcredit – A Summary of Evidence from Pakistan*, Pakistan Microfinance Network.

Hassan, T. and Ahmad, B. (2016) "The Role of Micro Enterprises in Employment and Income Generation: A Case Study of Timergara City, Dir (L) Pakistan", *International Journal of Economics and Management Sciences*, No. 5: p. 318.

Hussien, M., and Hussain, S. (2003) *The Impact of Microfinance on Poverty and Gender Equity Approaches and Evidence from Pakistan*, Pakistan Microfinance Network.

Khama, M. and Bruce, H. (2016) *Global Outreach & Financial Performance Benchmark Report*, MIX Market.

Najam, A. and Bari, F. (2017) *Pakistan National Human Development Report - Unleashing the Potential of a Young Pakistan*, UNDP Pakistan.

Noreen, U. et. al. (2011) "Impact of Microfinance on Poverty: A Case of Pakistan", *World Applied Sciences Journal*, Vol. 12, No. 6, pp. 877-883.

Odell, K. (2010) *Measuring the Impact of Microfinance, Taking another Look*, Grameen Foundation Publications.

Odell, K. (2016) *Measuring the Impact of Microfinance, Looking into the Future*, Grameen Foundation Publications.

Rauf, S. A. and Mahmood, T. (2009) "Growth and performance of microfinance in Pakistan", *Pakistan Economic and Social Review*, Vol. 47, No. 1, Department of Economics, University of Punjab, Pakistan.

Rosenberg, R., Gaul, S., Ford, W. and Tomilova, O. (2013) "Microcredit Interest Rates and Their Determinants", *Access to Finance, Reports by CGAP and Its Partners*, No. 7.

Sharafat, A., Humayun, R., Aamir, K.M. (2014) "The role of small and medium enterprises and poverty in Pakistan: An empirical analysis", *Theoretical and Applied Economics*, Vol. XXI, pp. 67-80.

Stewart, R., van Rooyen, C., Dickson, K., Majoro, M. and de Wet, T. (2010) "What is the impact of microfinance on poor people? A systematic review of evidence from sub-Saharan Africa", *World Development*, Vol. 40, No. 11, pp. 2249–2262.

Wan Nurulashiah binti Wan Mustapa, Al Mamun, A. and Mohamed Ibrahim, D. (2018) "Development Initiatives, Micro-Enterprise Performance and Sustainability", MDPI.

World Bank (2018) *Doing Business 2018: Reforming to Create Jobs*, Washington, DC: World Bank.

ANNEXURES

A. LITERATURE REVIEW – KEY STUDIES AND THEIR FINDINGS

In Pakistan, there is no exhaustive and comprehensive study on the impact of microfinance to date. Pakistan Microfinance Network (PMN) is currently undertaking a long-term impact assessment study in Pakistan using a differences-in-differences approach, measuring long-term impact of microfinance on the well-being of poor people in Pakistan; two rounds of the study have been completed, however, the study report will be published after conducting two more rounds of the study. PMN, in a paper published in 2010, presented a summary of 3 sector-level impact assessment studies by PPAF, European Union and DFID outlined below.²³

In 2009, PPAF commissioned a sector study which focused on the impact of microfinance on clients in Pakistan and the key findings of that study highlighted that on average, treatment households fared better than the control group on indicators of income, and personnel assets.

Another sector-level study on impact of microfinance was commissioned by the European Union in 2007²⁴. Impact of microfinance on socio-economic indicators including economic status, children's education, housing, asset ownership, women empowerment, business characteristics, health expenditure and child immunization was studied for six MFPs but were presented separately for each MFP in the sample. The major finding of the study was that the highest impact was found among institutions that had been lending for the longest period and for larger loan amounts suggesting the long-term nature of observability of impact via microfinance.

The third sector-level study was commissioned by DFID in 2006, which studied the impact of microfinance on the lives of beneficiaries. The study found that microfinance programs enabled them to take advantage of income-generating activities, business expansion, and other investment opportunities, thereby improving livelihoods. Some clients that had used saving accounts felt better off; around two-third clients felt that they were not provided with financial services that they needed; and many of them felt that the amount of loan was too small to make an impact in businesses.

In 2011, another impact assessment study was conducted that examined the role played by microfinance in poverty alleviation, using increase in education of children, improved housing, increased security of food, increase in expenditure by households and increase in assets owned by households as the hypothesis to be tested. The study revealed a significant and positive relationship between microfinance and education of children and household expenditure, but no significant

²³ PMN reports (2010), Impact of Microcredit – A Summary of Evidence from Pakistan

²⁴ Zaidi et al., 2007

effect on housing conditions, household assets and consumption of food items.²⁵

While no detailed study has been conducted in Pakistan that examines the performance of micro-businesses' financial performance in-depth, the closest reference to a micro-business's financial performance is found in the "Estimating Micro-Businesses' Ability to Pay" study conducted by PMN in 2011²⁶. The study profiled the financial performance of micro-businesses in five sectors to ascertain the affordability of microfinance. However, the study is now dated and suffers from some limitations, in particular the 'sample selection bias'.

Globally, the Grameen Foundation Publication series²⁷ concluded that "access to credit is observed to predictably lead to increases in business investment, and often lead to more flexibility for households in terms of occupational choice (wage labor versus working in a family business) and consumption choices". However, the study does highlight that increased business investments not always result in increased profits and income and this needs to be further investigated through future research. The study also refers to six Randomized Controlled Trail (RCT) studies on credit conducted in 2015 that were evaluated to form the basis of evidence on credit for the impact assessment. Overall, these studies find that credit has many positive, although modest, effects on a range of measures. More specifically for the studies referenced in the impact assessment, the study for group lending in India highlighted the increase in hours spent on household businesses, the study for group and individual lending in Mongolia highlighted positive impacts on entrepreneurship, and the study of group lending in Morocco revealed a positive impact on self-employment.

The second paper in the Grameen Foundation series, in 2010²⁸ studied the impact assessment literature to estimate the average effect of microfinance programs overall on the lives of poor people. It concluded that overall effects on the incomes and poverty rates of microfinance clients is unclear, as are the effects of microfinance on the measures of social well-being such as health, education and women empowerment. The latest, Paper 3, in the impact assessment series is different from the previous, as it looks at the holistic approach of financial inclusion rather than only the impact of microfinance, meaning it also includes the overall financial eco-system i.e. payments, etc. due to the evolution of thinking in the role of financial services in economic development. However, the paper only focused on new evidence post 2010 and was not a systematic review due to the expanding body of research available on the subject.

The Systematic Review on the impact of microfinance interventions in South Asia was commissioned by DFID²⁹ in 2016 and concluded that "an overall positive influence on various outcomes. However, there is inconclusive evidence of the impact of microfinance in terms of alleviating poverty, and the evidence suggests that the impact of microfinance in improving income, education, women's

²⁵ Umara Noreen, Rabia Imran, Arshad Zaheer and M. Iqbal Saif, (2011), Impact of Microfinance on Poverty: A Case of Pakistan, *World Applied Sciences Journal* 12 (6): 877-883.

²⁶ ShoreBank International, (2011), "Estimating Micro-Businesses' Ability to Pay"

²⁷ Kathleen Odell, (2016), Measuring the Impact of Microfinance, Looking into the Future, Paper no. 3 in the Grameen Foundation Publication Series.

²⁸ Kathleen Odell, (2010), Measuring the Impact of Microfinance, Taking Another Look, Grameen Foundation Publications

²⁹ Gopaldaswamy AK, Babu MS, Dash U (2016) Systematic review of quantitative evidence on the impact of microfinance on the poor in South Asia. London: EPPI-Centre, Social Science Research Unit, UCL Institute of Education, University College London.

empowerment, and employment are marginal.” In a systematic review of impact of microfinance in sub-Saharan Africa,³⁰ it was observed that “micro-credit and micro-savings make some people poorer and not richer. Clients save more, but also spend more. Health generally improves and, for some, access to food and nutrition. Impacts on education are varied with limited evidence for positive effects and considerable evidence that micro-credit may be doing harm such as reducing the education of clients’ children. Microcredit may empower some women, whilst both microcredit and micro-savings improve clients’ housing. There is little available evidence about the impact on job creation or social cohesion”. According to an impact evaluation from India, “microcredit may not be the ‘miracle’ that is sometimes claimed on its behalf, but it does allow households to borrow, invest, and create and expand businesses”.³¹

To summarize the international literature available on impact of microfinance, there seems to be no or insignificant evidence to substantiate that microfinance can alleviate poverty. Nonetheless, within the debate pertaining to impact of microfinance on the well-being of the poor, the importance of additionalities that microfinance offers in the form of an opportunity to create and support gainful employment, an increase in the revenue of microenterprises, and consumption smoothing at the household level as a result of increased access to finance are frequently overlooked.

B. KEY RESEARCH DEFINITIONS

Increase in revenue: The Increase in revenue was calculated on the basis of change in annualized revenue before and after the loan. Revenue was recorded in the survey on monthly and annual basis with effects of seasonality of revenue and finally in the profit and loss statements drawn up for last twelve months. The data was cross verified from each input point to ensure the adequacy and accuracy of data reported and collected. Respondents were asked to identify all the sources of revenue (i.e. goods, products and services) and monthly revenue against each source. Monthly revenue was used to calculate the average annual revenue of an enterprise. Annual revenue with the effect of seasonality was calculated by identifying number of months and value of sales in “low”, “average” and “good” months and multiplying the number of “low”, “average” and “good” sales months by sales for low”, “average” and “good” months. The information for average annual revenue and annual revenue with seasonality was collected for the period before and after the loan. Finally an annual profit and loss statement was developed for the last twelve months. The variation in the revenue figure reported for annualized revenue after the loan and revenue reported in profit and loss statement for last twelve months is about 0.8 percent. For the purpose of analysis annualized revenue after loan has been used.

³⁰ Stewart R, van Rooyen C, Dickson K, Majoro M, de Wet T. (2010) What is the impact of microfinance on poor people? A systematic review of evidence from sub-Saharan Africa.

³¹ Abijit Banerjee et al., (2009), “The miracle of microfinance? Evidence from a randomized evaluation”

Increase in jobs supported: The number of additional jobs supported was calculated based on the direct increase in head count for paid employees. Out of the 125 microfinance clients included in the survey, 122 were active microenterprises, the remaining three loans were entirely used for consumption purposes and no business activity was connected to the loan utilization. One microenterprise closed operations due to losses, the remaining 121 microenterprises were the source for employment and income for 293 people. The number of jobs supported that are reported in the study, only considers people (including the owner as well as employees of the microenterprise) who are owners and paid employees or seasonal workers of the microenterprise. Number of unpaid family members or employees who were working without any monetary compensation were not included in determining number of full-time jobs supported or seasonal employment by the surveyed microenterprises.

Financial performance and affordability of financial cost: For ascertaining the affordability of financial cost, effective annual percentage rate (APR) is compared to the return on total assets (ROTA). If the microenterprise earns a higher return on assets than the effective interest charged on loans, then the interest rate is economically viable. ROTA is used instead of return on capital employed (ROCE) as ROTA is the stringent test of a business's profitability. Other elements of affordability analysis include interest coverage and debt service ratio. Debt service ratio of less than 1 is considered risky and will make affordability questionable, since the income for the owners is already excluded from net profit, otherwise it should be at least 2 times. Commercial banks generally consider a debt service ratio of 1.15 to 1.35 times to be reasonable for assessing the repayment capacity of a company for long term loans. The performance of the microenterprises is evaluated through gross and net profit margins, operational costs, debt equity ratio, total assets and asset turnover.

Loan usage: The survey respondents were asked to identify the purpose of the loan, which were broadly categorized as purchase of business assets, purchase of business supplies, purchase of household supplies, payment of another loan, and any other purpose specified by respondent. Additionally, the respondents were asked to identify their satisfaction with the adequacy of loan amount and if the loan amount was sufficient for their needs and whether it was spent wholly or partially for the purpose of the loan initially identified. This captured the usage of loan for business versus consumption purposes. For determining the value of loans used for consumption purpose, half of the total loan amount was taken into account where the respondent identified partial use of loan for business purpose. If the loan amount was identified to be insufficient for their needs, respondents were asked to identify other sources of financing/borrowing.

Headcount: For the purpose of our study, the number of people employed in a microenterprise for remuneration.

Jobs Supported: For the purpose of the study jobs supported means direct increase in headcount

and increase in number of working hours by the people employed in a microenterprise on full-time basis and full-time equivalent of seasonal workers.

ROTA Ratio: Defined as profits before interest and taxes (PBIT) divided by total net assets, the ROTA ratio measures how efficiently a business is generating earnings before interest and taxes are paid. This means capital structure and different tax rates would not affect comparisons between different businesses. The ratio measures the percentage of profits earned per rupee of asset and is thus a measure of the efficiency of the business in generating profits on its assets. ROTA is a stringent indicator of return to business stakeholders (owners and creditors).

ROCE Ratio: Defined as PBIT divided by capital employed, this ratio establishes the relationship between profit and capital employed in percentage terms and can be used to demonstrate overall profitability and efficiency. Capital employed is the owner's equity plus long-term debts or total assets minus current liabilities. It is considered the best measure of profitability to assess overall business performance. It indicates how well investments are utilized: the higher the ROCE, the more efficient the business is in using its funds.

Interest Coverage Ratio: This is defined as PBIT divided by interest expense. It is used to determine how easily a business can pay interest on outstanding debts. A high interest coverage ratio means that the business is able to meet its interest obligations from profits easily. A low value means that the business is potentially in danger of not being able to meet its interest obligations. For the purposes of our analysis, interest expense is referred to as "financial cost" and includes interest expenses, processing or other fees, insurance premiums, and any other costs that are prerequisites for obtaining loans. Furthermore, the businesses analyzed in our research are below the taxability ambit, therefore the term PBIT is essentially "net income before financial cost." Generally, an interest coverage ratio of two times or more is considered good from a lender's point of view. Businesses with less than 1.5 times interest coverage are considered risky due to their vulnerability.

Gross Profit Margin: The Gross Profit Margin shows profit margin after covering direct costs (cost of goods sold) from each rupee of sales in percentage terms. It is calculated by dividing gross profit by revenue.

Net Profit Margin: The net profit margin measures how much net profit is earned by a business from each rupee sales after all expenses are covered. The net profit margin is a good way of comparing businesses in the same sector since such companies are generally subject to similar business conditions. It is calculated by dividing PBIT by revenue.

Financial Cost as a percentage of total operating expenses is an indicator used in our research to analyze the magnitude of financial cost in relation to the total operating expenses of the business.

The outcome of this indicator is used to determine the burden of financial costs on business profits and losses.

Asset Turnover Ratio: Asset turnover ratio calculated sales revenue with assets used to generate those sales i.e. how many times assets have been converted into sales. In its simplest terms, it just means sales revenues of PKR 'n' for every one rupee of assets. Higher turnover means higher sales translating into higher profits.

Debt Service Ratio: The debt service coverage ratio, also known as “debt coverage ratio”, is the ratio of cash available to debt servicing for interest, principal and lease payments. It is a popular benchmark used in the measurement of an entity’s ability to produce enough cash to cover its debt payments. In our analysis it is measure to calculate microenterprise ability to pay interest and principal from the net profit (PBIT).

Debt-Equity Ratio: The debt-to-equity ratio is a financial ratio indicating the relative proportion of owners’ equity and debt used to finance a business’ assets. For the purpose of this study it is calculated by dividing total liabilities with owners equity.

Interquartile Range: The interquartile range, also called the midspread or middle 50 percent, or technically H-spread, is a measure of statistical dispersion, being equal to the difference between 75th and 25th percentiles, or between upper and lower quartiles, $IQR = Q_3 - Q_1$.

C. SNAPSHOT OF EMPLOYMENT PROFILE OF SAMPLE MICROENTERPRISES

The Table 12 below documents the employment profile of the microenterprises which participated in the survey. About 42 percent of microenterprises are run by their owners, 20 percent have one employee, 16 percent have two employees, 9 percent have three employees, the remaining 13 percent have between 4-7 employees in addition to the owner. 45 percent of the employees are eligible youth between the ages of 20-34 years. 60 percent are male, and 40 percent are female. 56 percent are on a monthly salary and 44 percent are hired on daily wages. About 91 percent work for more than 20 hours per week and the average salary per month is PKR 12,925.

Table 12: Employment profile of microenterprises

	NUMBER OF EMPLOYEES PER MICROENTERPRISE (INCLUDING OWNER)							OVERALL	
	Owner	1-emp	2-emp	3-emp	4-emp	5-emp	6-emp		7-emp
Number of microenterprises	121	51	24	19	9	2	4	1	121
OVERALL									
(# of employees)	121	70	46	27	16	7	5	1	293
(% of employees)	42%	20%	16%	9%	7%	2%	3%	1%	100%
B/w 14 to 19 yrs.	1%	20%	22%	26%	38%	57%	80%	100%	16%
B/w 20 to 24 yrs.	3%	25%	20%	22%	6%	43%	0%	0%	14%
B/w 25 to 29 yrs.	8%	14%	18%	15%	25%	0%	20%	0%	13%
B/w 30 to 34 yrs.	17%	23%	16%	19%	19%	0%	0%	0%	18%
More than 35 yrs.	71%	17%	24%	19%	13%	0%	0%	0%	40%
Gender									
Male	53%	63%	63%	74%	75%	57%	60%	100%	60%
Female	47%	37%	37%	26%	25%	43%	40%	0%	40%
Employment contract									
Payroll	53%	56%	59%	67%	45%	67%	67%	100%	56%
Daily wage	47%	44%	41%	33%	55%	33%	33%	0%	44%
Hours per week - employees									
<20hrs	9%	6%	12%	15%	0%	17%	20%	0%	9%
> 20hrs	91%	94%	88%	85%	100%	83%	80%	100%	91%
Monthly salary									
PKR	16,134	9,137	9,837	9,194	10,250	14,933	15,600	7,800	12,925

D. SECTOR DEFINITIONS

1. Agriculture

In macroeconomic context Pakistan's agriculture sector plays a central role in the economy as it contributes 18.9³² percent to GDP and absorbs 42.3³³ percent of labor force. At the national level the sub-sectors of agriculture include crops, livestock, forestry and fishing. Pakistan's agriculture sector recorded a remarkable growth of 3.81³⁴ percent in the year 2017-18, which was over and above the target of 3.5 percent.

However, for microfinance industry agriculture is much restricted and predominantly includes production and farm-level processing of plant crops (i.e. food, vegetable, fruits, flowers, trees and herbs), agricultural inputs, and agricultural assets. It may also expand to agriculture processes and techniques e.g. digging water-channels and other forms of irrigation, etc. Agriculture is the fourth largest sector in microfinance industry in terms of number of borrower as per the MicroWATCH issue no. 49, accounting for 17 percent (approximately 1.1 million) of total microfinance active borrowers. Major classifications by MFPs at the subsector level for agriculture sector include general agriculture that comprises of input supplies and general crop production; major crops including sugarcane, cotton, wheat and rice; vegetables i.e. potatoes, tomatoes, etc.; land for agriculture; flowers, ornamental plants, etc.; and assets i.e. tractor. The following five subsectors based on highest number of borrowers for participating MFPs were included in this research:

Table 13: Agriculture sub-sectors

NAME OF SUBSECTOR FOR THE STUDY	NAME OF SUBSECTOR AS IDENTIFIED BY MFPs	DEFINITION
Agriculture-general	Agriculture/ inputs/ Agriculturist/ Crop production	Most MFPs have classified loans to the agriculture sector in a general category. It includes loans for: all types of crop production unless specifically identified, agriculture inputs (i.e. seeds, fertilizers, pesticides), agriculture others (i.e. operating expenses for agriculture), and in most cases agriculture assets are also classified in the subsector.
Sugarcane	Sugarcane	Loans specifically identified for sugarcane crop including production and processing.
Cotton	Cotton	Loans specifically identified for cotton crop including production and processing.
Wheat	Wheat	Loans specifically identified for wheat crop including production and processing.
Rice	Rice	Loans specifically identified for rice crop including production and processing.

³² Economic survey of Pakistan, (2017-18), Ministry of Finance, Pakistan

³³ Economic survey of Pakistan, (2017-18), Ministry of Finance, Pakistan

³⁴ Economic survey of Pakistan, (2017-18), Ministry of Finance, Pakistan

In the agricultural sector portfolio loans have been acquired for similar reasons over years i.e. input supplies (seeds, fertilizers, pesticides) or operating expenses (electricity, labour, fuel, sowing, irrigation, harvesting). These loans at best bridge the liquidity gap between the harvests, they do not necessarily increase the performance of microenterprises in the agriculture sector. There is no progression towards value addition in agricultural produce by the micro-agriculturists. Another issue that still remains is dependence on much expensive credit from input suppliers, middlemen and bigger landowners. It comprises bargaining power as the credit suppliers also induce them to sell their produce to them at unfair prices. Lastly, access to mainstream markets, factories, and mills especially in remote areas is another barrier for agriculture sector.

2. Livestock

Livestock, a subsector of agriculture sector in national economy, recorded a growth of 3.76³⁵ percent in 2017-18 compared to 2.99 percent in year 2016-17. The share of livestock in overall agriculture sector is 58.9 percent. As per Pakistan's Economic Survey, around 8 million families are involved in livestock raising and derive more than 35 percent of their income from livestock production activities.

In the context of microfinance sector, livestock includes large and small ruminants' i.e. cattle, buffaloes, sheep, goats, camels, horses, asses, and mules. As a sector, it refers to domesticated animals raised to produce commodities such as food (milk, meat, ghee), fibre (wool, leather) and labour (ploughing fields, transporting goods), or fattened for selling purpose. Poultry (i.e. rearing of birds for eggs, meat, and/or feathers) and fishery (i.e. rearing of fish for commercial purpose) are also included in livestock. Livestock/poultry is the largest sector for microfinance industry with 25³⁶ percent share of microfinance active borrowers (approximately 1.66 million). Subsectors included for the purpose of this study include:

Table 14: Livestock sub-sectors

NAME OF SUBSECTOR FOR THE STUDY	NAME OF SUBSECTOR AS IDENTIFIED BY MFPS	DEFINITION
Livestock -general	Livestock / trading	Most MFPS have classified loans to the livestock sector in a general category. It includes loans for all types of livestock related activities/ businesses unless they have been specifically categorized in any other subsector mentioned below e.g. livestock trading, livestock, dairy, poultry, assets, sheds, chillers, etc.
Milking/ dairy	Livestock milking/ dairy	Loans specifically identified for dairy or milking business.
Rearing & fattening-large ruminants	Livestock rearing & fattening-large ruminants	Loans specifically identified for rearing & fattening-large ruminants (i.e. cows, buffalos, etc.).
Rearing & fattening-small ruminants	Livestock rearing & fattening-small ruminants	Loans specifically identified for rearing & fattening-small ruminants (i.e. goat, sheep).
Fisheries	Fisheries	Loans specifically identified for fisheries including establishment and operation.

³⁵ Economic survey of Pakistan, (2017-18), Ministry of Finance, Pakistan

³⁶ MicroWATCH issue no. 49

3. Trading

Domestic trading is not identified as an independent sector in the national economy of Pakistan, however it is a significant contributor and an enabling subsector for all major sectors in the country's economy. Be it agriculture, livestock, manufacturing or services, trading ensures the delivery of goods and services to the market. Trading refers to a business activity or enterprise engaged in buying and selling goods and services, without any significant value addition.

In the microfinance industry, trading is the second largest sector and represent 19³⁷ percent of active microfinance borrowers (approximately 1.26 million). This study looks at the five most common trading subsector identified by the participating MFPS based on highest number of borrowers.

Table 15: Trading sub-sectors

NAME OF SUBSECTOR FOR THE STUDY	NAME OF SUBSECTOR AS IDENTIFIED BY MFPS	DEFINITION
Trading/ Business	Trading/ Business	Loans to trading business are not specifically classified in any other category by the participating MFPS. Examples include garment shops, fruits and vegetable shops, meat shops, etc.
Handicrafts	Handicrafts	Loans to businesses selling handicrafts (e.g. hand-crafted decorative items, hand crafted traditional wears, etc.)
Other retailing	Other retailing	Loans to businesses engaged in retail trading e.g. electric warehouse, shoe stores, stationary shops, etc.
Cloth stores	Cloth stores	Loans to businesses (cloth shops) selling unstitched cloth of any or all varieties (e.g. plain, printed, textured, and embroidered) for men, women, and children.
Grocery/General stores	Grocery/General stores	Loans to small grocery shops in urban and rural neighborhoods. Grocery shops/ general stores generally sell everyday items such as food (i.e. flour, rice, sugar, lentils, butter, oil ghee, tea, spices), cleaning accessories (i.e. soap, detergent, shampoos), others (i.e. cold-drinks, snacks, candy), etc.

³⁷ MicroWATCH, Issue 49: Q3 (JUL-SEP) 2018

4. Services

Services is the largest sector in Pakistan's economy and contributes 60.2³⁸ percent to the country's GDP. The subsectors in services comprise of transport, communication, finance, insurance and storage subsectors. It is the second largest employer of human resource in Pakistan. Services sector by the nature promotes entrepreneurship and self-employment of people with skills.

In microfinance industry Services sector has the fifth highest share of active borrowers at 15 percent (just under a million borrowers). Services refers to providing general or specialized skills to satisfy the needs and requirements of the person or another business against payment. Services sector also earns its importance in microfinance more specifically as it provides opportunity to people with knowledge and or skill to become economically active. For this research, microenterprises included in this sector are those where entrepreneurs utilize only their skills and expertise to serve their clients. The table below identifies the subsectors for Services identified by MFIs as having maximum number of microenterprises.

Table 16: Services sub-sectors

NAME OF SUBSECTOR FOR THE STUDY	NAME OF SUBSECTOR AS IDENTIFIED BY MFIs	DEFINITION
Services-general	Business purpose/ Other services	Loans to service sector business not specifically classified in any other category by the participating MFIs. Examples include electricians, welders, mechanics, personal care givers, teachers, caterers, event managers, etc.
Tailoring/ stitching	Tailoring/ stitching	Loans to tailors (shop owners as well as home based) providing stitching services to both male and female clients are included in this subsector.
Transport	Transport	Loans to transport service providers are included in this subsector e.g. rickshaw, pick & drop services, delivery services, etc.
Self employed	Self employed	Loans to individuals for starting a microenterprise.
Beauty Parlor / Salon	Beauty Parlor / Salon	Loans to beauty parlors and salon.

³⁸ Economic survey of Pakistan, (2017-18), Ministry of Finance, Pakistan

5. Others (Others and Manufacturing)

Others is the third largest sector in microfinance industry with 18³⁹ percent share of microfinance active borrowers (approximately 1.19 million). Since Others is a very generic and loosely defined sector, for the purpose of this study it is combined with Manufacturing which is the sixth largest sector for microfinance industry with a market share of 6⁴⁰ percent active borrowers (around 0.39 million). For selecting the subsectors for this consolidated sector, top three subsectors from Others and the top two subsectors from Manufacturing were selected based on highest number of clients of participating MFPs.

Table 17: Others sub-sectors

NAME OF SUBSECTOR FOR THE STUDY	NAME OF SUBSECTOR AS IDENTIFIED BY MFPs	DEFINITION
Personal	Personal	Loans to individuals as personal loans by participating MFPs classified in others' sectors, examples include loans to carpenters, home tuition, steel net, furniture etc.
Others	Others	Loans to other business not specifically classified by the participating MFPs. Examples include painting, jewelry shop, rickshaw purchase, etc.
Housing repair & renovation	Housing repair & renovation	Loans for the repair and renovation of houses, classified in others as subsector
Garments/ tailoring/ sewing/ handicrafts	Garments/ tailoring/ sewing/ handicrafts	Loan to the makers of readymade/stitched garments on wholesale basis for men, women and children.
Manufacturing	Manufacturing	Loans to manufacturing sector business not specifically classified by the participating MFPs. Examples include iron works, jewelry making, shoe making, etc.

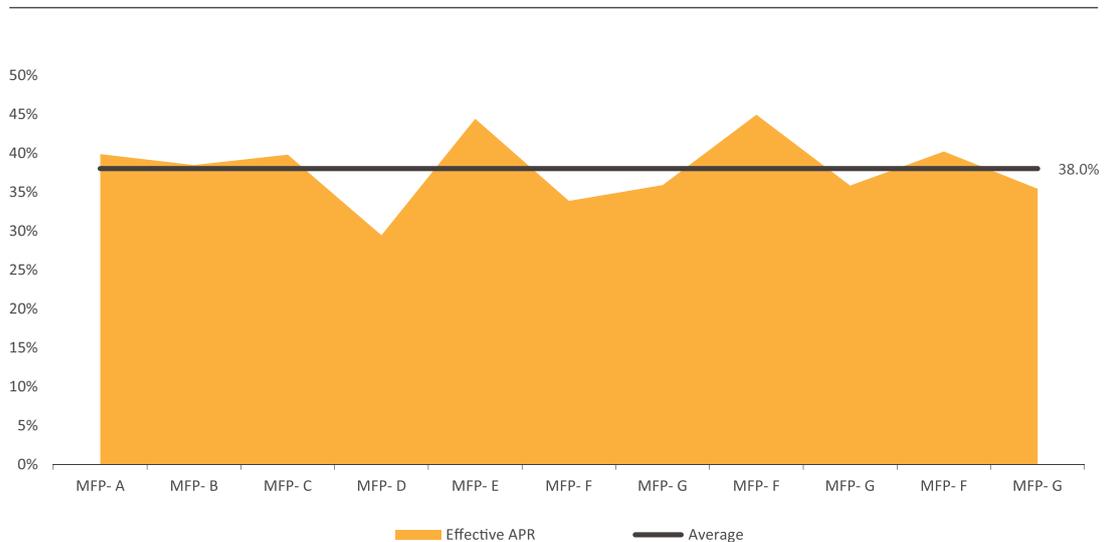
³⁹ MicroWATCH, Issue 49: Q3 (JUL-SEP) 2018

⁴⁰ MicroWATCH, Issue 49: Q3 (JUL-SEP) 2018

E. FINANCIAL COST OF BORROWING

MFPs offer a broad range of products to micro-borrowers. Financial costs generally charged are a combination of interest and any or all of the following: processing fees, documentation charges, legal charges, penalty and insurance fees. The term “effective APR” refers to fees plus compound annualized interest rates charged to borrowers on loan amounts. Effective APR is an indicator of effective interest rate or effective cost to the borrower when dealing with loans from MFPs. APR computations factor in up-front costs (like processing fees and documentation charges, etc.) that MFPs may charge for their loans, and accordingly, the total cost to the borrower is built into it. The effective interest rate for each product (i.e 127 total products) offered by MFPs participating in this research was calculated by using average loan size and average tenor for each product. Product wise effective APRs were averaged to arrive at institutional effective APR. Our analysis, based on the data provided by seven MFPs, showed that these MFPs charged an average effective APR of approximately 38 percent. An MFP-wise comparison of effective APR along with the average is illustrated in Figure 50.

Figure 50: Effective APR of Participating MFPs (industry)



F. KEY FINANCIAL DATA FOR SUB-SECTORS

Table 18: Agriculture – Key financial data

	AGRICULTURE GENERAL	SUGARCANE	COTTON	WHEAT	AGRICULTURE SECTOR (AVERAGE)
PROFIT AND LOSS STATEMENT					
Sales	429,000	575,000	440,000	295,000	451,000
Cost of Sales	99,000	123,000	186,000	75,000	110,000
Gross Profit	330,000	453,000	254,000	220,000	341,000
Operating Cost	252,000	414,000	254,000	153,000	280,000
Net Profit	77,000	39,000	-500	67,000	61,000
BALANCE SHEET					
Current Assets	41,000	9,800	54,500	10,000	32,000
Fixed Assets	2,915,000	3,956,000	4,500,000	5,268,000	3,510,000
Total Assets	2,956,000	3,966,000	4,554,000	5,278,000	3,541,000
Liabilities	73,000	57,000	106,000	112,000	76,000
Equity	2,883,000	3,909,000	4,448,000	5,166,000	3,466,000
Total Liabilities & Equity	2,956,000	3,966,000	4,554,000	5,278,000	3,542,000
LOAN INFORMATION					
Loan tenor (months)	13	13	12	9	12
Loan Amount (PKR)	63,000	55,000	88,000	97,000	67,000
Financial Costs -P&L (PKR)	16,000	15,000	19,000	33,000	17,000
FINANCIAL RATIOS					
Average monthly income (PKR)	6,500	3,200	-41	5,600	5,100
Average monthly distributable income (PKR)	21,000	21,000	20,000	16,000	20,000
Gross profit margin (%)	77%	79%	58%	75%	76%
Net profit margin (%)	22%	9%	4%	34%	17%
Financial cost as % of operating expenses (%)	6%	4%	7%	22%	6%
Interest coverage ratio (times)	6	4	1	2.5	4
ROCE (%)	3%	1%	0%	2%	2%
ROTA (%)	3%	1%	0%	2%	2%
Debt equity ratio (%)	3%	2%	2%	2%	2%
Debt service ratio (times)	1.3	0.8	0.2	0.6	1
Asset turnover (times)	0.2	0.2	0.1	0.1	0.1

2. Livestock

Table 19: Livestock – Key financial data

	LIVESTOCK GENERAL	MILKING / DAIRY	LIVESTOCK TOTAL (AVERAGE)
PROFIT AND LOSS STATEMENT			
Sales	429,000	1,260,000	660,000
Cost of Sales	138,000	400,000	212,000
Gross Profit	290,000	857,000	450,000
Operating Cost	176,000	360,000	227,000
Net Profit	115,000	500,000	223,000
BALANCE SHEET			
Current Assets	56,000	164,000	86,000
Fixed Assets	853,000	1,080,000	916,000
Total Assets	910,000	1,240,000	1,000,000
Liabilities	75,000	121,000	88,000
Equity	834,000	1,119,000	914,000
Total Liabilities and Equity			
LOAN INFORMATION			
Loan tenor (months)	13	13	13
Loan Amount	65,000	102,000	75,000
Financial Costs	17,000	24,000	19,000
FINANCIAL RATIOS			
Average monthly income (PKR)	9,600	42,000	19,000
Average monthly distributable income (PKR)	20,000	65,000	33,000
Gross profit margin (%)	68%	68%	68%
Net profit margin (%)	31%	42%	37%
Financial cost as % of total operating expenses (%)	10%	7%	8%
Interest coverage ratio (times)	8	22	13
ROCE (%)	16%	47%	26%
ROTA (%)	15%	42%	24%
Debt equity ratio (%)	9%	11%	10%
Debt service ratio(times)	2	4	3
Asset turnover (times)	0.5	1	1

3. Trading

Table 20: Trading – Key financial data

	TRADING / BUSINESS	HANDICRAFTS	GROCERY/ GENERAL STORE	CLOTH STORES	OTHER	TRADING TOTAL (AVERAGE)
PROFIT AND LOSS STATEMENT						
Sales	2,000,000	360,000	2,000,000	1,079,000	636,000	1,630,000
Cost of Sales	1,300,000	180,000	665,000	487,000	403,000	983,000
Gross Profit	708,000	180,000	1,340,000	592,000	233,000	646,000
Operating Cost	484,000	244,000	178,000	1,400,000	184,000	566,000
Net Profit	224,000	-64,000	1,200,000	-800,000	50,000	80,000
BALANCE SHEET						
Current Assets	51,000	9,000	150,000	265,500	7,500	84,000
Fixed Assets	2,055,000	25,000	87,000	33,000	945,000	1,410,000
Total Assets	2,106,000	34,000	236,000	300,000	953,000	1,500,000
Liabilities	82,000	35,000	143,000	143,000	62,000	90,000
Equity	2,024,000	-556	93,000	156,000	890,000	1,400,000
Total Liabilities and Equity	2,106,000	34,000	236,000	299,000	953,000	1,500,000
LOAN INFORMATION						
Loan tenor (months)	19	24	12	16	12	17
Loan Amount	96,000	210,000	80,000	217,000	71,000	118,000
Financial Costs	20,000	34,000	22,000	39,000	15,000	23,000
FINANCIAL RATIOS						
Average monthly income (PKR)	19,000	-5,000	99,000	-66,000	4,200	6,700
Average monthly distributable income (PKR)	53,000	9,700	112,000	28,000	18,000	46,000
Gross profit margin (%)	35%	50%	67%	55%	37%	40%
Net profit margin (%)	12%	-8%	60%	-70%	10%	6%
Financial cost as % of operating expenses (%)	4%	14%	12%	3%	8%	4%
Interest coverage ratio (times)	13	0.1	56	-20	4	5
ROCE (%)	12%	5396%	1301%	-484%	7%	7%
ROTA (%)	12%	-88%	512%	-253%	7%	7%
Debt equity ratio (%)	4%	-6215%	154%	91%	7%	6%
Debt service ratio (times)	3	-0.2	12	-4	1	1
Asset turnover (times)	1	11	9	4	1	1

4. Services

Table 21: Services – Key financial data

	SERVICES GENERAL	TAILORING/ STITCHING	TRANSPORT	SELF	BEAUTY PARLOR / SALON	SERVICES TOTAL (AVERAGE)
PROFIT AND LOSS STATEMENT						
Sales	1,224,500	551,000	530,000	8,487,000	588,000	1,237,200
Cost of Sales	677,400	135,000	328,000	4,405,800	93,200	575,000
Gross Profit	547,000	416,000	201,900	4,081,200	494,800	662,000
Operating Cost	393,400	305,800	221,700	1,366,000	586,100	402,000
Net Profit	153,700	110,300	-19,900	2,715,200	57,100	260,000
BALANCE SHEET						
Current Assets	34,300	37,700	39,600	110,100	53,300	42,400
Fixed Assets	372,000	260,300	98,500	3,141,500	344,000	459,000
Total Assets	406,300	298,000	138,100	3,251,600	397,300	501,500
Liabilities	55,300	37,700	66,700	130,885	59,300	53,300
Equity	351,000	260,380	71,300	3,120,700	338,000	448,125
Total Liabilities and Equity	406,300	298,000	138,000	3,251,600	512,250	501,400
LOAN INFORMATION						
Loan tenor (months)	15	12	10	12	14	13
Loan Amount	94,545	49,300	60,000	75,000	75,000	68,600
Financial Costs	15,982	10,600	11,900	13,000	17,600	13,200
FINANCIAL RATIOS						
Average monthly income (PKR)	12,811	9,197	-1,657	226,200	4,700	21,672
Average monthly distributable income (PKR)	39,000	29,970	15,010	303,300	37,500	48,200
Gross profit margin (%)	45%	76%	38%	48%	84%	54%
Net profit margin (%)	14%	22%	-2%	32%	13%	22%
Financial cost as % of operating expenses (%)	4%	3%	5%	1%	3%	3%
Interest coverage ratio (times)	11	11	-0.5	210	4	21
ROCE (%)	48.4%	46.5%	-11.2%	87%	22%	61%
ROTA (%)	41.8%	40.6%	-5.8%	83.9%	18.8%	55%
Debt equity ratio (%)	15.8%	14.5%	93.6%	4.2%	17.5%	12%
Debt service ratio (times)	2	2.1	-0.1	31	0.9	3.7
Asset turnover (times)	3.0	1.9	3.8	2.6	1.2	2.5

5. Others

Table 22: Others – Key financial data

	OTHER-GENERAL	PERSONAL LOAN	HOUSING REPAIR & RENOVATION	GARMENTS	OTHERS TOTAL (AVERAGE)
PROFIT AND LOSS STATEMENT					
Sales	606,500	4,152,700	990,000	8,796,080	3,961,900
Cost of Sales	198,500	3,374,900	432,000	7,265,000	3,145,800
Gross Profit	408,000	777,800	558,000	1,531,000	816,100
Operating Cost	383,300	685,800	355,600	864,500	623,600
Net Profit	24,700	92,000	202,400	666,500	192,400
BALANCE SHEET					
Current Assets	14,670	82,000	120,000	1,266,800	301,670
Fixed Assets	57,100	1,194,333	495,000	106,870	630,400
Total Assets	71,700	1,276,400	615,000	1,373,700	932,100
Liabilities	29,100	127,400	21,200	562,900	182,700
Equity	42,600	1,148,930	593,800	810,700	749,300
Total Liabilities and Equity	71,700	1,276,400	615,000	1,373,700	932,100
LOAN INFORMATION					
Loan tenor (months)	12	13	12	14	13
Loan Amount	46,400	111,250	50,000	145,200	97,440
Financial Costs	9,200	22,800	13,600	23,000	18,700
FINANCIAL RATIOS					
Average monthly income (PKR)	2,000	7,666	16,800	55,500	16,000
Average monthly distributable income (PKR)	30,300	53,100	34,800	100,440	55,400
Gross profit margin (%)	67%	19%	56%	17%	21%
Net profit margin (%)	6%	3%	22%	8%	5%
Financial cost as % of operating expenses (%)	2%	3%	4%	3%	3%
Interest coverage ratio (times)	4	5	16	31	12
ROCE (%)	80%	10%	36%	85%	28%
ROTA (%)	47%	9%	35%	50%	22.7%
Debt equity ratio (%)	68%	11%	3.6%	69%	24%
Debt service ratio (times)	0.7	1	4	5	2
Asset turnover (times)	8.5	3.3	1.6	6	4.3



KARANDAAZ PAKISTAN, a Section 42 company established in August 2014, promotes access to finance for micro and small businesses through a commercially directed investment platform, and financial inclusion for individuals by employing technology enabled digital solutions. The company has financial and institutional support from leading international development finance institutions; principally the United Kingdom's Department for International Development (DFID) and the Bill & Melinda Gates Foundation (BMGF). The Company has four verticals:

Karandaz Capital provides wholesale structured credit and equity-linked direct growth capital investments to micro, small and mid-size enterprises (MSMEs) with compelling prospects for sustainable growth and employment generation in Pakistan.

Karandaz Digital focuses on expanding the poor's access to digital financial services in Pakistan by working across the ecosystem with all stakeholders including regulators, policy-makers, government departments, businesses and researchers and academics with activities arranged in four key work areas-Policy and Regulation, Seeding Innovation, Experimentation and Solutions Development, and Scale and Outreach.

Karandaz Innovation manages the Innovation Challenge Fund, providing risk capital and grants to partners with an aim to generate innovative solutions to complex problems in areas of financial inclusion and entrepreneurship.

Karandaz Knowledge Management and Communication supports the company's core financial inclusion goal by developing and disseminating evidence based insights and solutions to influence markets and financial ecosystem.