



DISCUSSION PAPER

Microfinance in Pakistan: A Case Study of District Sialkot

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Acronyms

1.	BHU	Basic Health Unit
2.	COVID	Coronavirus Disease
3.	FATA	Federally Administered Tribal Areas
4.	GDP	Gross Domestic Product
5.	GLP	Gross Loan Portfolio
6.	HIES	Household Income and Expenditures Survey
7.	IT	Information Technology
8.	KB	Khushali Bank
9.	MFB	Microfinance Bank
10.	MF	Microfinance
11.	MFI	Microfinance Institution
12.	MSDP	Microfinance Sector Development Program
13.	NGO	Non-Governmental Organization
14.	OPD	Outpatient Department
15.	PBS	Pakistan Bureau of Statistics
16.	PKR	Pakistani Rupee
17.	PMN	Pakistan Microfinance Network
18.	PPAF	Pakistan Poverty Alleviation Fund
19.	Q1/Q2	Quarter 1/Quarter 2
20.	RSP	Rural Support Program
21.	SBP	State Bank of Pakistan
22.	SECP	Security and Exchange Commission of Pakistan
23.	SPSS	Statistical Package for Social Sciences
24.	USD	United States Dollar

Executive Summary

In 2001, the Government of Pakistan launched the formal microfinance sector intending to reduce poverty and income inequality. Despite several claims from micro-level studies regarding the efficiency and productivity of microfinance, it became plausible to analyze its performance on an aggregate level. This discussion paper focuses on District Sialkot, known for its entrepreneurial spirit and tradition of small and micro enterprises, to critically analyze the distributional effects of microfinance. For that purpose this paper exploits quintile data from 1991 to 2017-18, published by the Household Income and Expenditure Survey (HIES) of the Pakistan Bureau of Statistics (PBS) and employs the Lorenz Curve to measure income distribution. The findings reveal a significant decline in the Gini Coefficient from 0.72 in 1991 to 0.43 in 2017 in the district. This improvement is also demonstrated by the Lorenz Curve, which shows curves moving closer to the line of equality, indicating a more equitable income distribution compared to previous years. Moreover, the results reveal a significant decrease in poverty ratios in Sialkot, along with improvements in various socioeconomic indicators. These improvements include an overall increase in school enrollments, with a significant rise in girls' enrollment, more frequent visits to basic health units (BHUs), and greater employment rates among both males and females.

Context: Microfinance and its Distributional Effects

Microfinance has gained substantial attention as a tool for poverty alleviation and economic development in developing countries, including Pakistan.¹ While high repayment rates have been observed in microfinance programs, the evidence regarding its effectiveness in reducing poverty and promoting inclusive growth is mixed.² Some studies have reported positive impacts of microfinance on poverty reduction and economic welfare, while others have raised questions about its sustainability and long-term effects on the distribution of wealth and income. For instance, a study conducted in Pakistan found that microfinance had a positive impact on both families and the business industry. However, it is imperative to recognize that substantial disparities at the aggregate level in developing economies may cast doubt on the success of microfinance initiatives.³ Nonetheless, in the case of Pakistan microfinance programs have shown some positive effects, it is therefore essential to consider their distributional effects across different income quintiles.⁴ This entails a comprehensive analysis of the impact of microfinance on different socio-economic groups and regions in Pakistan. This analysis should assess whether microfinance programs are reaching the most vulnerable and disadvantaged populations, or if they are predominantly benefiting those who are already more privileged. Moreover, it is equally important to reflect

¹ Morduch, J. (1999). The microfinance promise. Journal of economic literature, 37(4), 1569-1614.

² Khawari, A. (2004). Microfinance: Does it hold its promises? A survey of recent literature. *A Survey of Recent Literature*. ³ Ibid.

⁴ Latif, W. U., Ullah, S., Ahmed, W., Sultan, M. U., Jafar, R. M. S., Tariq, M., & Linping, W. (2020). Microcredit and economic welfare: Experience of poor rural households from Pakistan. *Journal of International Development*, *32*(6), 976-997.

upon the potential of savings programs within microfinance initiatives as a means to reduce poverty. By providing individuals with a safe and formal means to save money, microfinance institutions can help individuals build assets and financial security. This can in turn contribute to poverty reduction and economic development, as individuals have financial security for uncertainties and are able to access funds for investment in income-generating activities. In conclusion, while microfinance programs have the potential to reduce poverty and promote inclusive growth, their effectiveness and distributional effects are mixed.⁵ There is a need for further research and analysis to understand the specific distributional effects of microfinance in Pakistan. Therefore, it is essential to ensure that microfinance programs are designed and implemented in a way that targets and benefits the most vulnerable and disadvantaged populations in Pakistan, particularly those in rural areas. In order to achieve this, there is a need to improve and localize microfinance institutions in rural areas and promote group lending methodologies to mitigate the risk of getting loans and increase participation from both male and female savers. Furthermore, removing interest rate restrictions and subsidies can help create a more sustainable microfinance market that can better serve the needs of the poor. Therefore, it is crucial to prioritize the assessment of distributional effects, emphasizing whether microfinance programs are effectively reaching and benefiting the most vulnerable populations in Pakistan.

This Discussion Paper addresses several key issues, though not all of the issues highlighted above, focusing particularly on the impact of microfinance in the Sialkot District of Pakistan. It is important to clarify from the outset that this is a discussion paper, not intended to provide a rigorous scientific analysis of the causality between microfinance and poverty reduction. Instead, it explores the existing poverty levels, in different years, in Sialkot, examining how microfinance has influenced variables such as poverty, income inequality, employment opportunities, and women's participation on the aggregate level. I want to underscore that the discussion paper primarily draws on data from my doctoral dissertation, both raw and analyzed, with all rights reserved.⁶

Moreover, it does not focus on specific microfinance policies such as models, interest rates, outreach, or loan sizes. Instead, it examines the overall impact of microfinance at the district level, specifically in Sialkot, and highlights its increasing efficiency in outreach. While there may be some discussion of interest rates, this is addressed as a methodological concern rather than an operational issue of microfinance, which will be evident to the readers. This work aims to present the distributional effects of microfinance in a straightforward manner for those who are not experts in the field. I have made an effort to steer clear of economic or financial jargon to ensure the text remains accessible and easy to understand. In conclusion,

⁵ Khan, A. A., S. U. Khan, S. Fahad, M. A. Ali, A. Khan, and J. Luo. 2021. "Microfinance and Poverty Reduction: New Evidence from Pakistan." *International Journal of Finance & Economics* 26, no. 3: 4723-4733.

⁶ Rovidad, M. (2020). Socio-economic Consequences of Microfinance Investment in Pakistan (Doctoral dissertation, Universität Wien).

the paper offers several policy recommendations that could potentially enhance the sector's impact on reducing inequalities and tackling poverty.

History and Background of Microfinance in Pakistan

Although widely recognized in Bangladesh due to Dr. Yunus's pioneering work in the 1970s, microfinance has its origin that trace back to earlier initiatives in Pakistan. Before Dr. Younas's pioneering work in Bangladesh in 1976, Pakistan had already executed small-scale financial services. Notably, Dr. Akhtar Hameed Khan established the Comilla Cooperatives in the 1960s, providing financial assistance in rural areas, a precursor to modern microfinance. Throughout the 1970s, various programs continued to support poor entrepreneurs, reflecting a long-standing "give and take" culture prevalent in societies. This informal tradition persisted in the late 1990s, after which the government formalized these efforts. By 2001, microfinance was institutionalized with the passing of the Microfinance Institution Ordinance,⁷ underpinning the Microfinance Sector Development Program (MSDP) initiated in 2000. The MSDP aimed to expand and sustain microfinance services, leading to the establishment of the Khushali Bank and other institutions under the oversight of the State Bank of Pakistan (SBP). The SBP and the Pakistan Poverty Alleviation Fund (PPAF) play significant roles in regulating and facilitating the sector, differentiated into banking and non-banking categories, with coordination provided by the Pakistan Microfinance Network. This structure continues to support the expansion and regulation of microfinance in Pakistan.

The formal establishment of the microfinance sector in Pakistan, in the early 2000s, aligns closely with the broader economic environment and recovery phases of the country. Historically, from the 1960s through the 1980s, Pakistan experienced robust growth in its main sectors, agriculture and manufacturing. However, the 1990s marked a significant economic downturn. Post-2002, the economy embarked on a recovery, highlighted by a notable growth rate of 6% from 2003 to 2007, the highest since 1991.⁸ This period also saw significant increases in foreign exchange reserves and investment levels that exceeded those of the previous decade. The formal establishment of the microfinance sector was integral to these broader economic reforms, including liberalization, privatization, and efficient resource management, aimed at poverty alleviation. According to the Pakistan Economic Survey (2013, 2014, 2015), the poverty rate, which was above 55% in the early 2000s, saw a remarkable reduction of 29 percentage points between 2005 and 2011, reflecting the positive impact of these financial initiatives on poverty alleviation.⁹ The data plotted in the following figure provides a glimpse of the interaction of poverty ratios and microfinance's gross loan portfolios.

⁷ Microfinance Institution Ordinance 2001 (LV of 2001)

⁸ Poverty and Social Impact Assessment, Pakistan Microfinance Policy Report (2006)

⁹ Pakistan Economic Survey is the official survey conducted by the Finance Ministry of Pakistan on Annual basis.



FIGURE 1: POVERTY HEAD COUNT RATIO VS. MICROFINANCE

Source: Pakistan Bureau of Statistics

Role of the State Bank of Pakistan

The State Bank of Pakistan (SBP) has been given the dual role of supervising and fostering the development of the microfinance (MF) sector, recognized as a crucial tool for poverty alleviation and financial deepening.^{10 11} To enhance its capabilities, the SBP established a dedicated internal division for MF, provided specialized training to a select group of officers, and engaged international consultants to help develop comprehensive surveillance guidelines for Microfinance Banks (MFBs). The SBP also actively monitors and regulates MFBs, issuing licenses and setting industry standards and regulations. It operates under a distinct board of directors tasked with ensuring a conducive environment for the growth of the MF sector. In 2004, the SBP hosted a significant international conference titled "Microfinance in Pakistan-innovating and Mainstreaming" to align and integrate national and international stakeholders, including the Pakistan Poverty Alleviation Fund (PPAF), the Pakistan Microfinance Network (PMN), and Khushali Bank (KB), further solidifying its leadership role in the sector.

Role of the Pakistan Poverty Alleviation Fund (PPAF)

The Pakistan Poverty Alleviation Fund (PPAF) emerged in response to the informal lending practices of the 1990s and was tasked with financing legally established microfinance nonbanking entities across public and private sectors. Initially intended as a temporary setup, the PPAF instead solidified its role as a pivotal force in the microfinance sector from 2000 to 2008, disbursing \$457 million to 71 institutions. This fund supported credit provision, community infrastructure, and capacity building, transforming PPAF into one of the world's largest funds. Its professional and efficient culture fostered a significant impact, with partner organizations

¹⁰ https://www.sbp.org.pk/about/micro/criteria.htm

¹¹ https://www.sbp.org.pk/reports/quarterly/FY06/second/microfinance.pdf

crediting it as the initial catalyst for the exponential growth and evolution of the microfinance landscape in Pakistan. The PPAF has significantly contributed to rural development, social mobilization, and community empowerment, moving partner organizations from dependency on charity to sustainable development entities.¹²

Pakistan Microfinance Network (PMN)

The Pakistan Microfinance Network is an organization that serves as a crucial link between the banking and non-banking microfinance sectors. It was established in the late 1990s to address the emerging informal market of microfinance practitioners. The PMN later achieved national and international recognition through its active participation in microfinance activities in Pakistan. Recognizing its active role, the Securities and Exchange Commission of Pakistan (SECP) formally structured the PMN under "Section 42" of the Companies Ordinance in 2001.¹³ Currently, the PMN holds the largest and most officially certified collection of statistical records for all microfinance providers in Pakistan.

The Current State of MF in Pakistan

Since its official launch in the year 2001, the microfinance sector in Pakistan has witnessed continuous growth. However, the growth rate has become exponential, particularly after 2010. According to the data from PMN quarterly reports, the number of active borrowers in the microfinance sector, including banking and non-banking institutions, surged by over 43%, rising from 3.6 million in 2015-16 to 6.4 million in 2018. Likewise, the overall "Gross Loan Portfolio (GLP)" has expanded by over 20% since 2017. This is highlighted in 'Microwatch' issue No. 48, indicating that a total of PKR 239 billion was disbursed in 2018, compared to PKR 200 billion in 2017. Equally important is the growth rate of the MF asset base which accounted for 25% in the year 2017. Table 1 below shows changes in a number of microfinance indicators for the years 2017 to 2018. As demonstrated in Table 1, the microfinance market has extended its reach to nearly all districts in Pakistan.¹⁴ Microfinance institutions (MFIs), banks, NGOs, and RSPs have, for the first time, expanded their operations to 138 out of 140 districts in 2018, with the exceptions being Kashmir and Gilgit Baltistan.¹⁵ Additionally, the number of borrowers and Gross Loan Portfolio (GLP) has increased by 19.46% and 28.7%, respectively. Partially, this can be attributed to the government's increased focus on the microfinance sector since 2015. This was the time when the government allocated significant financial support, resulting in a remarkable increase in average loan sizes. In the year 2018, the average loan size grew by 12.4%, indicating efficient utilization by borrowers. This is also evident from the "Value of Total Savings" and "Average Loan Savings Amount" which show a growth rate of 29.5% and 27.85%, respectively.

¹² Pakistan Poverty Alleviation Fund (PPAF) document retrieved source: https://www.ppaf.org.pk/doc/programmes/8-A%20Decade%20 of%20Accomplishment%20-%20Ten%20Years%20of%20PPAF.pdf

¹³ Meher Shah (2011). REGULATING PAKISTAN'S NONBANK MICROFINANCE INSTITUTIONS. Pakistan Microfinance Network, No. 14.

¹⁴ *Microwatch Issue No 48, September 2018*

¹⁵ Due to their controversial positioning, on the United Nation's Global map, the districts of Kashmir and Gilgit Baltistan, the northern regions, have been excluded.

Indicators	Year 2018	Year 2017	%Change
Number of Branches/Units	3,948	3,484	11.75
Number of Districts Covered	138	106	23.18
Penetration Rate (%)	31.5	24.95	20.79
Active Borrowers	6,460,015	5,202,872	19.46
Gross Loan Portfolio (PKR Millions)	239,364	171,008	28.55
Number of Loans Disbursed	1,735,131	1,507,803	13.1
Disbursements (PKR Millions)	88,947	67,644	23.95
Average Loan Size (PKR)	51,262	44,863	12.4
Number of Savers	25,799,503	25,211,463	2.2
Value of Savings (PKR Millions)	209,298	147,549	29.5
Average Loan Savings Balance (PKR)	8,112	5,852	27.85
Number of Policy Holders	8,023,973	6,347,260	20.89
Sum Insured (PKR Millions)	227,405	167,868	26.18

TABLE 1:THE CURRENT STATE OF MICROFINANCE IN PAKISTAN

Source: Pakistan Microfinance Network (Microwatch Issue) (Compiled by M.Rovidad (2020))

Regional Distribution of Microfinance in Pakistan

Despite the institutionalization of the microfinance sector in the late 1990s, obtaining reliable statistics on its early years remains a challenge. However, comprehensive data from the Pakistan Microfinance Network (PMN) has been available since 2005-06, providing valuable insights into the national, provincial, and district-level distribution of microfinance. Initially, microfinance was concentrated in Punjab and Sindh, with an estimated total of around PKR 4 billion. Conversely, regions such as Khyber-Pakhtunkhwa received limited microfinance funding, while provinces like Baluchistan and the Federally Administered Tribal Areas (FATA) were entirely overlooked. However, due to the sector's success and rapid expansion, microfinance operations have now reached almost every district in Pakistan. For instance, Punjab witnessed the establishment of 442 microfinance offices, serving over 300,000 borrowers, while Sindh saw 222 offices serving more than 115,000 borrowers. The growth estimates of the microfinance gross loan portfolio, illustrated in Figure 2, suggest an average growth rate of around 25% since the sector's inception in 2001, while an exponential growth in the latest years.



FIGURE 2: NATION-WIDE MICROFINANCE GROWTH SINCE 2001

(Estimated by the Author using PMN stats)





Source: Microwatch issue 56 (PMN)

State of Microfinance in Punjab

Punjab, the largest province by population in Pakistan, stands as the primary focal point for microfinance investment. Out of a total of PKR 509 billion (USD 2 billion) invested in microfinance, Punjab owns a substantial share of PKR 341 billion, representing over 67% of the microfinance market. This province holds significance as the pioneer in establishing a formal structure for the microfinance sector back in 2001. Moreover, Punjab serves as a

pivotal economic hub, contributing 54% to the Gross Domestic Product (GDP) of Pakistan, as highlighted in studies by Bengali (2006)¹⁶ and Pasha (2015)¹⁷. These factors underpin our choice of Punjab for this study.

Microfinance in Punjab has shown remarkable performance, consistently maintaining positive growth. According to an analysis published in Dailytimes in 2016 by Sivia (2016), microloans play a vital role in uplifting the impoverished populace, particularly in Punjab. The province's vast agricultural lands have seen increased productivity and income levels among poor farmers due to the utilization of microfinance loans, leading to improved living standards and poverty alleviation.

Cities like Lahore, Faisalabad, and Sialkot serve as industrial hubs, providing access to local and international markets for agricultural and manufacturing products. This advantage is unique to Punjab compared to other provinces. Southern Punjab dominates the agricultural sector, while northern and central Punjab are predominantly industrialized. Although historically developed districts like Rahimyar Khan and Bahawalpur have faced challenges over time prompting initiatives by local and provincial governments to restore their former prosperity through cooperative schemes and microfinance programs.

Similarly, Sialkot, once considered underdeveloped, experienced significant growth in the 1990s, leading to a decline in poverty rates. The presence of microloans, particularly in central Punjab during the late 1980s and early 1990s, facilitated the growth of small-scale manufacturing and household industries, notably in sports goods production. Sialkot, which had once seen a decline in its industrial and manufacturing prominence following Pakistan's independence due to migration and ensuing chaos, was ranked between the 24th and 26th positions in district development rankings in Punjab, in the 1970s¹⁸. Over time, the city demonstrated its resilience by rebuilding and regaining its manufacturing prowess. Literature also highlights Sialkot's enduring tradition of informal community financing, which supports the initiation of small household businesses. This intrinsic entrepreneurial spirit, fueled by local informal lending, has helped Sialkot become one of the leading cities for exporting high-quality manufactured goods. For these reasons, among others, Sialkot has been selected as a case study to analyze its socio-economic development and explore any correlations between formal microfinance initiatives and income redistribution.

Sialkot: Snapshot of Historical and Cultural Overview

Historically, before the independence of Pakistan, Sialkot was one of the most developed regions in British India, with a vibrant commercial and trading class primarily comprising Sikhs

¹⁶ Kaiser Bengali and Mahpara Sadaqat (2008). REGIONAL ACCOUNTS OF PAKISTAN: METHODOLOGY AND ESTIMATES 1973-2000. Social Policy & Development Centre Karachi

¹⁷ Pasha, H. A. (2015). *Growth Of The Provincial Economies*. Lahore, Pakistan: Institute For Policy Reforms.

¹⁸ Burki, S. J., Pasha, H. A., Hasan, P., Karamat, J., Hamid, S., Hussain, A., Noorani, T. (2012). *The State of the Economy:The Punjab Story.* Lahore: Institute of Public Policy:Beaconhouse National University.

and Hindus who owned the industry and commercial markets, while the Muslim population largely provided labor. However, the landscape dramatically shifted during the partition of India in 1947. The industrial capitalist class, predominantly Hindus and Sikhs, relocated their industrial bases to the Indian city of Jalandhar¹⁹. This migration left Sialkot with minimal industrial and commercial infrastructure, rendering it one of the most underdeveloped areas with scarce resources.

The prevailing literature often describes Sialkot as a city of entrepreneurs due to the inherent entrepreneurial spirit of its inhabitants. It is commonly said that nearly every resident of Sialkot is an entrepreneur by birth. While this might be an exaggeration, it is not limited to just the urban center of Sialkot; this entrepreneurial spirit extends to the rural and other urban areas within the district as well. Most existing studies tend to focus only on those involved in manufacturing enterprises as entrepreneurs. However, theoretically, anyone engaged in any type of productive activity that introduces new ideas to existing or emerging markets qualifies as an entrepreneur. This includes sectors like manufacturing, agriculture, services, and modern fields like IT and computing.

Thus, my discussion will encompass not just the main city but the entire district of Sialkot, which is known for its agricultural enterprises, particularly in Daska. Sialkot district, with a population of over 4 million, primarily concentrated in the city, serves as a hub for various small, medium, and large enterprises. Geographically, the district is situated in the northeastern part of Pakistani Punjab, bordering Jammu and Kashmir to the southeast. It consists of four administrative units or tehsils: Sialkot, Pasrur, Daska, and Sambrial. Sialkot is recognized as an economic hub, notable for its small-medium enterprises. Unlike much of Punjab, the district features a feudal-free agrarian structure with predominantly small landholdings.

Problem Statement

Poverty and inequality are pervasive issues that underpin a host of social, political, and economic challenges in underdeveloped and developing regions. These challenges manifest as low educational attainment, malnutrition, high infant mortality rates, gender discrimination, increased crime, and widespread domestic abuse, all of which are exacerbated by socioeconomic disparities. In response, various governmental policies and initiatives aimed at poverty alleviation have been introduced to narrow the income gap across different societal segments. In Pakistan, one notable initiative is the introduction of microfinance, which began formally in early 2001. Since its inception, the microfinance sector has seen exponential growth and now spans across the entire country, reaching nearly every district. While existing literature reports on various outcomes of these microfinance initiatives in sectors like agriculture, manufacturing, services, and livestock, these analyses are predominantly at

¹⁹ Chattha, I. (2021). From mistri to tycoons: Historical advancement of surgical instruments and sports goods in Pakistan. *Journal of the Punjab University Historical Society,* 34(01), 1-16.

the micro level, often overlooking broader, systemic impacts.

This discussion paper aims to delve deeper into the effects of microfinance on poverty and income inequality within Pakistan, using the district of Sialkot as a case study. It seeks to explore whether the provision of small loans at the grassroots level, intended to combat poverty and improve livelihoods, can effectively serve as a bottom-up strategy that might compress income disparities and spur economic growth. The paper endeavors to address critical questions regarding the microfinance sector's role in shaping economic outcomes and reducing socio-economic inequalities.

Methods

This discussion paper adopts a pragmatic approach, which offers a credible method for examining specific issues. Central to this approach is the identification of problems, a critical step in any research process. Once a problem is identified, the next step is to problematize it, meaning the issue is scientifically framed from a general concern into a solvable query. The focus then shifts to exploring potential solutions available in the literature. An important point to consider in this methodology is its emphasis on addressing the proximate causes of problems rather than delving into their epistemological roots (The final causes).²⁰ This method prioritizes finding solutions to immediate issues without extensive consideration of possible unintended consequences. However, this focus is often critiqued because solving one problem may inadvertently lead to the emergence of new, unforeseen issues, which then become subjects for future research.

This cycle underscores the argument that scientific progress is inevitable, and no single solution can resolve all issues simultaneously. Each solution implemented opens avenues for new questions and challenges, highlighting the dynamic and ongoing nature of scientific inquiry.

Theory

This paper utilizes the theoretical framework of Clark's accelerator theory of investment, which provides insights into the aggregate consequences of investment, particularly public expenditures. The choice of this theory was made deductively after reviewing various investment theories. The accelerator theory was selected for two primary reasons: firstly, it demonstrates greater explanatory power compared to other theories addressing similar phenomena; secondly, it is theoretically well-suited to accommodate small-scale investments. This alignment makes it particularly relevant for examining the impact of microloans aimed at

²⁰ For reference to understand the final and proximate causes read the first chapter (first two pages) of Temin, P. (1973). Did Monetary Forces Cause the Great Depression?

poverty alleviation through the establishment of micro and small-scale enterprises²¹.

Data and Analytical Tools

To analyze specific socioeconomic indicators such as poverty rates, income statistics, education, and health data, as well as women's participation in education and employment sectors, I relied on Punjab Development Statistics, which has compiled data on various developmental indicators annually since 1971. Additionally, for microfinance-related statistics, I utilized data from the Pakistan Microfinance Network, which issues quarterly reports in their Microwatch publications. Furthermore, I accessed certain required data regarding household incomes and expenditures from the Pakistan Bureau of Statistics's Household Income and Expenditure Survey (HIES). This survey is particularly important for calculating income distribution through the Lorenz Curve and Gini coefficient.

Analytical software such as MS Excel and SPSS were used to organize and analyze the data. Calculating the Gini coefficient required a time-series of HIES quintile data spanning from 1990 to 2017-18. However, for plotting the Lorenz curve, particular focus was given to the data from 2001 onwards, the year when microfinance was officially introduced. This time-series data is essential to capture the dynamics of income ratios across quintiles and over time. No in-depth regression analysis was conducted, as the aim was to identify correlations rather than establish causality. However, to illustrate basic relationships between dependent and independent variables, simple regression tests were applied. This is for the simple reason of ensuring clarity in understanding basic relationships without going into complex causal interpretations. The focus is solely on examining the relationship between the introduction of microfinance in a specific area and changes in income distribution over time.

Sialkot: A Case of Entrepreneurship

As much as Sialkot suffered during and after the partition, the city began its recovery shortly after the establishment of the newly formed state of Pakistan. The existing workforce, previously employed predominantly as laborers in industrial settings, was soon recognized as a vital asset for revitalizing the city's weakened industrial infrastructure. Supported by both national and provincial governments, a recovery initiative was launched, including various surveys aimed at identifying the core challenges. The primary issues identified were the need for credit or financial support for entrepreneurs, improvements in industrial organization, and enhancements in power infrastructure.

State support, alongside the local tradition of mutual aid in Sialkot, played a crucial role in

²¹ Maurice Clark (1917) was one of the pioneers in proposing the accelerator theory. According to Clark, business investment decisions are triggered by changes in output demand rather than the current level of demand, as outlined by Baddeley (2003) Rovidad, (2020). Specifically, any variation—whether an increase or decrease—in output demand compels producers to adjust their 'velocity' of capital equipment, an idea central to the 'acceleration principle'. Consequently, an uptick in aggregate demand necessitates an expansion of capital stock by producers to meet the heightened output requirements. This concept of the "acceleration-principle" is integrated into several economic theories.

reviving grassroots small industries, which are considered foundational to the medium and large industrial sectors. Once the government stimulated demand for industrial recovery, this boost trickled down to households, prompting residents to start manufacturing various goods. This response helped establish the network of small cottage industries that now characterize Sialkot. Traditionally, these communities supported their nearby relatives and neighbors who lacked the necessary resources to initiate manufacturing on a micro level. Resources were generated either through the provision of factors for marketable goods or through small informal loans that required no collateral. While similar processes could have occurred in agricultural production, they remained on a smaller scale.

Currently, Sialkot stands as the country's second-largest exporter, having established its own privately managed airport and an airline named Air Sial. Reflecting its autonomous economic development, the city also formed its own Sialkot Chamber of Commerce to safeguard local businesses. The city's major exports include surgical instruments, leatherwear, and sports goods. Recent literature reports that the per capita export in the district exceeds 1000 USD²², nearly three times higher than the national average of Pakistan. Poverty rates have significantly declined, from as high as 54% in the early 1990s to as low as 13% in 2018, showcasing the city's remarkable economic resilience and growth²³.

Findings

At the onset of the research, simple linear regression tests were conducted, utilizing the aggregate level of microfinance investment in Sialkot as the independent variable and household incomes and expenditures data from the HIES as the dependent variable through a time series analysis. The time-series analysis spans from 2001, the inception year of microfinance initiatives, till 2017-18. The results of the tests confirm the positive impact of microfinance loans on the incomes of the lower quintiles in Sialkot District. However, it is reiterated that the primary aim is to refrain from making causal claims using statistical or econometric models solely to enhance the readability of this paper for a wider audience, rather than targeting a specialized peer group.

Furthermore, Lorenz curves were estimated using Excel, employing quintile data from the HIES. Estimating Lorenz curves does not entail complex technical procedures; simple analysis of quintile data from the HIES can provide a basic understanding of the progression of incomes and expenditures over time. Therefore, readers should not be perplexed by this process. However, the calculation of the Gini coefficient using the Lorenz curve may appear complex for individuals not well-versed in statistical analysis. However, for clarity, it is essential to understand that the Gini coefficient ranges from 0 to 1. A coefficient closer to 0 signifies a more even distribution of income, while a coefficient closer to 1 indicates greater

²² Anwar, N. (2014). Infrastructure redux: Crisis, progress in industrial Pakistan & beyond. Springer.

²³ Roviad, M. (2020). Socioeconomic Consequences of Microfinance Investment in Pakistan. *Doctoral Dissertation, archived University of Vienna*.

income inequality.

Gini and Lorenz Curve Analysis for Sialkot

A consistent decline in Gini coefficients for Sialkot District has been observed since 2002 (refer to Table 3). This decline begins in 2002, a year following the formal implementation of microfinance. However, the data presents a contrasting scenario when considering the period preceding 2001. As previously mentioned, Sialkot District demonstrates greater prosperity in terms of income distribution. This observation is corroborated by Figure 4, which depicts the Lorenz curves estimated for Sialkot District. The graph projects Lorenz curves pertaining to microfinance from 2001 to 2017, illustrating income distribution trends in Sialkot District during the specified timeframe; the "red line" represents income distribution in 2001, while the "blue line" depicts income distribution in 2017. The Lorenz curves for Sialkot District exhibit a visible trend towards the "line of equality" since 2001, indicating relatively improved income distribution compared to previous years.²⁴



FIGURE 4:LORENZ CURVE FOR SIALKOT

As mentioned before, Sialkot City and its surrounding district have a tradition of small-scale enterprises, mainly operated from homes. This tradition benefits from a culture of informal financial support, where neighbors and relatives assist those in need. It is noteworthy that before providing financial assistance, lenders would offer training to borrowers, often in

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²⁴ Ibid. Rovidad, M. (2020).

²⁵ Quintiles, by definition, divide a data (dataset) into five parts (20%, 40%, 60%, 80%, and 100%). The lowest quintiles comprise those at the bottom who have the smallest share of total incomes/wealth.

skills such as handicrafts, embroidery, hand-stitching, or creating fabric, including spinning, weaving, knitting, dyeing, and finishing, based on market demand. For example, a lender running a small business might train a borrower in making handicrafts or clothing items before providing financial support. This ensured that borrowers were equipped with the necessary skills to start a profitable venture. This practice extended to larger industries like sports goods and leather manufacturing, where larger companies relied on these home-based enterprises for production.

This mode of work was advantageous for both employees, who could work from home, and employers, who saved on space, food, and travel expenses for employees. In economic theory, this phenomenon underlines the importance of capital circulation in driving economic expansion and reducing income inequality. When capital is actively employed in productive enterprises such as businesses and industries, it stimulates economic growth by increasing output and fostering employment generation. Consequently, the utilization of capital into productive channels stimulates aggregate demand, generating a virtuous cycle of investment, job creation, and income generation. This process, rooted in the principles of investment theory, facilitates the narrowing of the wealth gap between upper-income brackets and the lower brackets, marginalized segments of society. Over time, sustained capital circulation has the potential to create a more equitably distributed economic landscape, aligning with the theory of change of societal transformation. The table below illustrates the Gini coefficient, changes in household incomes and consumption, and changes in poverty incidences about changes in microfinance. These changes are depicted as percentages.

	Gini-Coefficient	%Change in HH Income	% change in HH consumption	Change in Pov- erty Incidences	% Change in Microfinance
2016-17	0.44	26.15	30.22	13.5	35
2014-15	0.449	24.88	28.86	22.23	33
2012-13	0.453	23.54	27.34	28.82	31
2010-11	0.46	23.9	24.11	33.62	30
2008-09	0.454	21.65	26.04	38.19	20
2006-07	0.45	19.46	25.43	40.32	25
2004-05	0.45	17.78	27.39	47.55	27
2002-03	0.458	15.21	24	55.12	36
2000-01	0.48	11.43	21.12	63.88	100
1998-99	0.57	4.22	17.65	66.32	0
1996-97	0.57	7.18	14.1	68.78	0
1994-95	0.69	9.22	19.54	70.34	0
1992-93	0.71	9.93	18.15	71.44	0
1990-91	0.72	10.34	10	71.62	0

Source: Author's estimation based on HIES, MIICS, and PMN data

The table above presents key indicators in a coherent format. It aims to simplify a comparison of these indicators before and after the formal introduction of microfinance (MF), offering insight into their correlation. Prior to the implementation of MF, Sialkot exhibited high levels of inequality, as evidenced by Gini coefficients ranging from 0.57 to 0.72, closer to 1, indicating significant inequality within society. However, following the official launch of MF, there is a noticeable, albeit gradual, decrease in the Gini coefficient, reaching as low as 0.44, suggesting a shift towards a more equitable income distribution. Notably, there was an abrupt drop from 0.57 to 0.48 immediately after the launch of MF. Subsequently, as it approaches 0 (absolute equality), the decline slows down, achieving a steady state, as explained by the economic theory of "returns to scale", which posits that if an intervention has positive impacts, these impacts are more significant initially and then slow down but remain steady over time²⁶.

Moreover, there has been a consistent increase in income percentages after the introduction of MF, continuing until 2017. This trend is similarly reflected in changes in consumption expenditures, aligning with the Keynesian theory of marginal propensity to consume, which posits that an increase in income leads to an increase in consumption. These indicators collectively contribute to poverty ratios, which show a significant decline from as high as 71% to as low as 13%. While there was a continuous decrease in poverty ratios even before the start of MF, the decline became more pronounced following its introduction, indicating its impact on poverty alleviation efforts.

Impact on Health and Education in Sialkot

Existing research has extensively examined the relationship between microfinance (MF) and health and education outcomes, often through household samples of MF borrowers. However, this paper diverges from a sample-based approach and instead seeks to uncover the connection between the initiation of MF and various indicators related to health, education, and women's empowerment.

In this investigation, we exploit data on the number of students enrolled in public sector primary schools annually. This choice is motivated by our focus on the lower quintiles, defined by the Pakistan Bureau of Statistics (PBS) as those living below the poverty line, earning less than \$2 a day. Consequently, when households in the lower quintiles begin to receive additional income, their priority often shifts to educating their children. Initially, however, they may only be able to afford education in public sector institutions.

The Figure below illustrates the trend in primary school enrolment in the selected districts. The data- collected from Punjab Development Statistics-indicate a noticeable increase in enrolment following the formal implementation of microfinance. This trend aligns with our findings, which observed a surge in average household consumption during the years 2001-02.

²⁶ https://www.investopedia.com/ask/answers/033015/whats-difference-between-diminishing-marginal-returns-and-returns-scale.asp



FIGURE 5:NUMBER OF STUDENTS ENROLLED PER YEAR

Source: Punjab Development Statistics (1991-2017)

The district exhibits steady growth trends; however, Sialkot surpasses other districts. This disparity may be attributed to the historical association of Sialkot's residents with manufacturing and handicrafts, allowing them to innovate and improve their existing enterprises. As a result, increased productivity enables them to invest more in productive sectors like education.

The education trend is examined both in general and with a focus on gender. A significant challenge for developing countries is the insufficient attention given to women's education. This is underscored by existing literature on microfinance (MF) and its impact on empowering women, not only in establishing microenterprises but also in facilitating their access to education. The graph below illustrates enrolment statistics for girls in the Sialkot district, indicating a noticeable increase in girls' enrolment, which can be attributed to the role of MF in women's empowerment. Here again, the upsurge is seen during 2001 the time microfinance was officially initiated.





Similar trends are observed in the health sector for which we collected the data from the same source of Punjab Development Statistics. To assess the impact of microfinance on healthcare within the chosen district, we examine the number of outdoor patients visiting

Source: Punjab Development Statistics (1991-2017)

nearby basic health units (BHUs). This choice is based on the OPD system's ability to provide quick consultations to patients. Specifically, as maintained, we focus on patients from the lowest income brackets. This selection is justified by the fact that these quintiles represent approximately 70% of microfinance borrowers in districts Sialkot. The increase in consumption expenditures among these quintiles, facilitated by microfinance, serves as the foundation for the observed rise in outdoor patients over time. The surge in the number of patients visiting healthcare facilities in district Sialkot in 2001 is evident from the data depicted in the Figure. This corresponds with the increase in expenditures by the lower quintiles during the same period, as anticipated by our initial conditions. Prior to the formal implementation of microfinance, the data on outdoor patients followed a relatively stable trend, which shifted significantly after the formal introduction of microfinance in 2001. The plot also juxtaposes Sialkot with a district from southern Punjab to convey to readers that during comparable periods, the effects of microfinance have spread across all regions where the microfinance sector was introduced. The primary objective is to illustrate to readers that small loans, when used effectively, can financially empower individuals, enabling them to allocate resources toward improving their health.





Microfinance Sector in Pakistan During Covid

This paper primarily focuses on the period before 2019, before the COVID-19 pandemic; however, it is essential to briefly consider the COVID-19 era, during which nearly all economic sectors were adversely impacted. Likewise, it is commonly perceived that the microfinance sector, catering primarily to the most economically vulnerable segments of society, would have been severely impacted by the COVID-19 pandemic. While there may be some validity to this assumption, as lower-income brackets were indeed heavily affected, even the upper-income quintiles experienced challenges. However, rather than testing or completely refuting these claims, I aim to offer observations based on aggregate data from the microfinance sector in Pakistan.

Data Source: Punjab Development Statistics (1991-2017)

According to data from the Pakistan Microfinance Network (PMN), as reported in Microwatch Issue 52, there was only a marginal decline in certain key indicators during Quarter 2 (Q2) of 2020 compared to Q1, which coincided with the onset of COVID-19 in Pakistan. Despite the challenging circumstances, indicators such as the Number of Loans Disbursed, Average Loan Size, and Number of Savers showed negligible decreases or even slight increases. Notably, Average Loan Size increased by 9.9 percentage points, while Total Loan Disbursement rose by 1.9%, with a slight positive change observed in the number of borrowers.²⁷

Possible explanations for the resilience of the microfinance sector in Pakistan during the pandemic include less stringent government lockdown policies compared to other countries and the adaptability of microfinance users, who may have benefited from selling homemade goods online amid the emergence of online markets during COVID-19.

Further exploration of this topic would require robust data and potential case studies at the district or regional level. However, as my focus is primarily on the distributional issues within the microfinance sector, I will refrain from delving deeper into this area.

	Quarter		Change
	Q2 - 2019	Q1 - 2019	%
Number of Branches/Units	3,892	3,838	1.4
Number of Districts Covered	137	137	
Penetration Rate (%)	34.8	34.7	0.3
Active Borrowers	7,142,247	7,118,368	0.3
Gross Loan Portfolio (PKR Millions)	293,695	288,287	1.9
Number of Loans Disbursed	1,843,466	1,983,518	-7.1
Disbursements (PKR Millions)	91,231	100,284	-9.0
Average Loan Size (PKR)	49,489	50,559	-2.1
Number of Savers	37,720,894	39,369,632	-4.2
Value of Savings (PKR Millions)	249,806	237,261	5.3
Average Saving Balance (PKR)	6,622	6,026	9.9
Number of Policy Holders	8,750,973	8,712,568	0.4
Sum Insured (PKR Millions)	259,951	257,131	1.1

TABLE 3: QUARTERLY UPDATE ON MICROFINANCE OUTREACH IN PAKISTAN (DURING COVID)

Source: Microwatch Issue 52

²⁷ Malik Laique Ahmed | Aug 29, 2019 | MicroWatch, Publications, *Pakistan Microfinance Network (PMN)*

Conclusion

By conducting this research, several arguments can be inferred. One argument is that while there may be pro-poor strategies initiated by the government, there is also the potential for developing countries with a majority of their population living below the poverty line to create a demand for loans that could benefit larger investors and potentially exploit the poorer sections of society. This argument finds validation in instances observed in India and Bangladesh, particularly where the corporate aspect of the microfinance sector had negative implications. However, the aim of this study was not to delve into the negative externalities produced by a program that transitioned from a cooperative project to a corporate business. Instead, the focus was on examining the existing microfinance structure in Pakistan, specifically in Sialkot.

As emphasized, it is not solely the amount of money provided that can yield productive results; rather, it is the overall landscape of an area, society, or community that, when analyzed and facilitated appropriately, can lead to productivity. In the case of Sialkot District, its entrepreneurial nature could prompt researchers or policymakers to explore the factors contributing to its success. From my perspective, it was the historical landscape of Sialkot as a business hub, which, despite being affected by the partition of Pakistan and India, revived due to the resilience of its people and support from the government. Consequently, small loans like microfinance can have cascading effects on households unable to own large industries but capable of establishing small or micro-enterprises to sustain their daily livelihood, encompassing essentials such as food, health, education, and dignity.

Recommendations

In the existing literature on small loans, whether backed by government initiatives, driven by corporate demand, or supported by welfare organizations, it is evident that all funding entities must carefully consider the investment of the provided funds. This discussion paper highlights that the success of micro-enterprises in Sialkot is greatly influenced by the local community's tradition of identifying individuals within their network who lack business opportunities, and then providing them with training and support. After receiving proper training, there is a level of certainty that the borrower will use the loan productively. Therefore, here are a few recommendations:

- 1. As noted above, prioritize community-based support systems, so that small businesses are incentivized.
- 2. Revitalizing the local industries is crucial because it has the potential to generate aggregate demand within the area. This, in turn, could stimulate households to start small businesses to supply the required inputs for larger industries in the district or region. Therefore, this initiative could create job opportunities in the area, leading to increased incomes that could subsequently support the education and healthcare sectors of the region.

- 3. The government should facilitate easy and affordable transportation of goods and services, akin to the mechanisms in place during the colonial era. Presently, many Pakistani districts, whether in manufacturing or agriculture, encounter obstacles in transporting their products to the main or international markets. Establishing a proper transportation mechanism, as pointed out in Sialkot, could encourage residents to initiate small businesses and respond more effectively to market demands.
- 4. Strengthen microfinance lending mechanisms and microfinance institutions for women's empowerment and entrepreneurship.
- 5. Design policies and processes through which microfinance could contribute to modernizing and re-furbishing health and education sectors at the district level.

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- 4. Microwatch Issue No. 48, September 2018



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