

FROM EXCLUSION TO EMPOWERMENT: ASSESSING MICROCREDIT IMPACT ON WOMEN'S ECONOMIC LIFE IMPROVEMENT

*DE LA EXCLUSIÓN AL EMPODERAMIENTO: EVALUACIÓN DEL IMPACTO DEL
MICROCRÉDITO EN LA MEJORA DE LA VIDA ECONÓMICA DE LAS MUJERES*

Ali Junaid Khan

ali.junaid@iub.edu.pk

Islamia University of Bahawalpur

Sana Fayyaz

sanafayyaz@bzu.edu.pk

Bahauddin Zakariya University

Iza Gigaure

i.gigaure@ug.edu.ge

University of Georgia

Subuhi Khan

szkhan@pnu.edu.sa

Princess Nourah Bint Abdulrahman University

Felix-Angel Popescu

felixangelpopescu@gmail.com

Agora University of Oradea

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ABSTRACT

This research investigates the economic lives of women, in Bahawalpur, the southern Punjab region of Pakistan, with a particular emphasis on personal empowerment. It examines the key features of microcredit, including loan duration, loan size, loan-related training, loan purpose, and loan type. Data is obtained through a survey and analyzed using multinomial logit and probit models. Worsen, same, and improved were the three categories of economic status used in the study. The findings suggest that the likelihood of a deterioration in the economic circumstances of women decreases as the loan duration increases. Indeed, the impact of loan purpose and loan size is not entirely evident; in certain instances, their impact has been determined to be somewhat weak or ambiguous. The findings indicate that the success of microcredit is contingent upon the loan's structure, as well as the attendant support and availability of funds.

Keywords: Economic Life Improvement, Empowerment, Sustainability, Inequality, Small Medium Enterprise, Microcredit.

RESUMEN

Esta investigación analiza la vida económica de las mujeres en Bahawalpur, en la región sur de Punjab, Pakistán, con un énfasis particular en el empoderamiento personal. Se examinan las características clave del microcrédito, incluyendo la duración del préstamo, el monto del préstamo, la capacitación relacionada con el préstamo, el propósito del préstamo y el tipo de préstamo. Los datos se obtuvieron a través de una encuesta y se analizaron utilizando modelos logit multinomial y probit. Las tres categorías de situación económica utilizadas en el estudio fueron: empeorada, igual y mejorada. Los resultados sugieren que la probabilidad de un deterioro en las circunstancias económicas de las mujeres disminuye a medida que aumenta la duración del préstamo. De hecho, el impacto del propósito del préstamo y del monto del préstamo no es completamente evidente; en ciertos casos, se ha determinado que su efecto es algo débil o ambiguo. Los hallazgos indican que el éxito del microcrédito depende de la estructura del préstamo, así como del apoyo y la disponibilidad de fondos asociados.

Palabras clave: mejora de la vida económica, empoderamiento, sostenibilidad, desigualdad, pequeña y mediana empresa, microcrédito.

JEL classification / Clasificación JEL: M20, M21, M13

1. INTRODUCTION

Microcredit is often regarded as an effective tool for enhancing women's economic empowerment. However, its efficacy varies depending on regional contexts and program methodologies (Basumatary et al., 2023; Al-shami et al., 2021). Minor loans, particularly in contexts of low income, have provided women with specific earning prospects and improved home circumstances (Jaiswal & Chordia, 2022). Nevertheless, it is difficult to ascertain the extent to which women gained personal liberty solely through lending, as it is contingent upon other factors. Factors include the loan amount, repayment duration, and the provision of any training (Khursheed et al., 2021; Raimi et al., 2023; Gigauri, 2025).

Currently, digital innovation and mobile finance have reduced the gender disparity in the global financial system. This trend was further exacerbated by the rise of digital payments during the COVID-19 pandemic (Dotsey, 2022; Castillo & Álvarez, 2024). Women in underdeveloped nations continue to face an annual financial deficit of over \$300 billion (World Bank, 2017). This indicates that financing alone is insufficient; we must also endeavour to eliminate the social and cultural obstacles that impede women. Previous research on the relationship between microfinance and income inequality analysed the panel data from 87 countries and found the differences among world regions, suggesting that the country context is important for microfinance and aid in reducing inequality (Castells-Quintana et al., 2019). Additionally, the presence of a leader or a community reference person significantly influences the success of microcredit (Abularach et al., 2023).

Prior studies indicate that an increased level of debt correlates with more independence among women, enabling them to make more autonomous choices and enhance their earning potential, particularly when educated in loan acquisition (Jaim, 2021; Cherotich et al., 2022; Llorente et al., 2023). However, these studies often rely on methodologies that inadequately comprehend the varying levels of women's autonomy (Abdallah et al., 2024; Goel & Ravishankar, 2022). The precise influence of loan specifics—such as time, quantity, training, purpose, and type—on women's personal liberty remains unclear.

This research seeks to evaluate women's autonomy using a Likert scale. To comprehend the mechanisms, including mediating or moderating variables, that exert an effect, several studies have explored socio-economic dimensions

via association; nonetheless, few research has adequately characterized ordinal autonomy in this domain. The idea of autonomy posits that autonomy is both a process and a conclusion, including the capacity to make independent judgments, the liberty to navigate freely, and the authority over one’s own resources.

Moreover, the unique social and cultural circumstances of Bahawalpur, a southern Punjab region in Pakistan, characterized by rigid gender standards and low literacy rates, necessitate a particular analytical approach to elucidate the impact of each aspect of debt on women’s lives. In the Bahawalpur area of southern Punjab, where the majority of the population resides in rural areas and only 6% of women participate in formal employment, microfinance institutions such as NRSP and Apna Bank are endeavouring to financially empower women by providing them with loans.

Table 1 provides a picture of Pakistan’s microfinance banks’ performance indicators for 2024. Khushhali Bank Limited (KBL) has the most active female borrowers, whereas ADVANS Bank has the fewest. The microfinance institutions in Pakistan demonstrate the reach of Pakistan’s microfinance business (Table 1). Microfinance bodies are striving to support women in participating in professional activities. Regarding microfinance suppliers in Pakistan, it is unclear how much of this target has been met. Besides, women face roadblocks when it comes to accessing microfinance programs.

TABLE 1. MICROCREDIT BORROWER’S POPULATION SUMMARY (2024)

Names	Total	Males	Females
Pakistan	6.885,117	4.819,059	2.066,058
Punjab	4.791,167	3.353,827	1.437,340
Southern Punjab	1.704,382	1.193,066	511,316
<i>Bahawalpur</i>	218,383	152,868	65,515

Source: authors based on data from Pakistan Microfinance Network (2024).

Therefore, this research examines the influence of five microcredit characteristics on women’s personal autonomy, utilizing ordinary logistic regression in Stata software, alongside variables such as education, marital status, and annual income, grounded in the theory and findings from the Gender Gap in the Global Report on Financial Inclusion. This research aims to determine the most effective loan conditions for enhancing women’s autonomy, equipping microfinance institutions and policymakers to make informed choices that may enhance the lives of neglected women in southern Punjab.

Thus, this research aims to explore how the main components of microcredit – loan duration, size, training, purpose and type – impact women’s economic lives in Bahawalpur, the South Punjab region of Pakistan.



2. LITERATURE REVIEW

2.1. THEORETICAL FRAMEWORK

Empowerment is both a process and a result, signifying that a person has the autonomy to make independent decisions (Showkat et al., 2024), has access to essential resources, and is more capable of making choices within their household or society. Theories of poverty reduction indicate that mere lending is insufficient. Indeed, access to credit is essential; nevertheless, genuine autonomy also requires training, collective assistance, and education on prudent financial management (financial literacy). All these factors determine whether women are truly empowered by the acquisition of loans (Fieve & Chrysostome, 2024; Abebe & Kegne, 2023).

Resource dependence theory posits that the provision of a substantial or long-term loan to an individual may indicate that the institution (Kengne, 2022), such as a bank or organization, has confidence in that individual. It also enhances the borrower's confidence and negotiating strength. Women who participated in the microcredit program were more likely to have a say in significant household financial decisions, according to a survey conducted in the slums of Lahore. However, they were not granted as much autonomy or authority in other areas of their existence. The empowerment of individuals after obtaining microcredit is influenced by factors such as their education and support for their families, according to a recent study conducted in Bahawalpur (Shoma, 2019). Nevertheless, the study did not examine the nature or terms of the loans or their impact.

In general, it has been observed that microfinance has facilitated social development and increased the financial autonomy of the populace in South Punjab. However, the majority of current research analyses employ models that are not straightforward, whereas it would be more advantageous to implement straightforward methods, such as the ordinal approach. The avenues of autonomy are influenced by the size, duration, training, purpose, and form of the loan. However, no research has yet examined these five aspects in the context of Pakistan, incorporating a metric of personal autonomy. Furthermore, the unique socio-cultural context of Bahawalpur, characterized by its low literacy rates and strict gender norms, necessitates a distinct approach to analysis.

2.2. THE IMPACT OF CREDIT DIMENSIONS ON ECONOMIC IMPROVEMENT

Women entrepreneurs have greater access to resources when they are granted more credit, according to global experiences (Henry et al., 2022). A larger loan amount enables them to make independent decisions and invest in their business (Cohen & Wirtz, 2022). The extension of the loan repayment period not only alleviates the issue of imminent money (Muthama & Warui, 2021) but also enhances the self-confidence and saving character of women, regardless of whether it pertains to financial matters or daily living. In the same vein, financial and business training enable them to utilize the loan more

effectively (Rahmawati et al., 2023), thereby enhancing their business and ensuring that they are considered in household decision-making. The loan has a greater economic benefit, such as enhancing the quality of life or increasing income, if its purpose is business or earning, rather than simply meeting expenditures (Gigaui et al., 2023).

Lastly, the collective autonomy of women is bolstered by the opportunity to collaborate, support one another, and make decisions together when the loan is granted in the form of a group. The results of the research indicate that the more loans women receive, the greater their economic independence. They are able to augment their assets and earnings by obtaining substantial loans. Women in Bangladesh demonstrated a greater capacity for decision-making and business expansion when they were granted a larger loan amount (Khatun & Kabir, 2014).

In addition to fostering confidence among women, similar loan initiatives that increase the amount each time also help manage of business opportunities. Women can better plan, pay instalments with ease, and accumulate savings when the loan is extended for a prolonged period of time (Can, 2025). It lends tranquillity to their personal and financial affairs. The study also indicates that individuals who obtained long-term loans expressed a greater sense of self-assurance and stability in their income (Christodoulou et al., 2024).

The training that women receive with a loan, such as financial information or business management, enhances their efficacy and ability to influence decisions at home (Andriamahery & Qamruzzaman, 2022). Financial literacy and business management workshops educate women on the responsible use of debt (Mberia & Wachira, 2021), thereby preventing bankruptcy and ensuring their long-term financial independence.

Taking out a loan to invest in a business, such as purchasing products or modernizing machinery, can result in increased economic benefits and greater autonomy. In Yemen, it was discovered that individuals who received substantial and business-oriented loans experienced an increase in their income and assets (Saleh et al., 2021). However, social autonomy rarely undergoes any modifications in the absence of support. The Type and Autonomy of Debt Group lending practices, such as establishing women's teams (Bonin et al., 2024), are employed to monitor and motivate one another. It can also be beneficial in the process of altering the household power balance. Not only does this model provide financing without a general guarantee, but it also establishes a social network that ensures women remain on the path to autonomy for an extended period.

Although research indicates that the amount, duration, training, purpose, and form of debt can increase the economic status of women, the majority of studies have not examined these factors in combination. In particular, research is scarce on small or neglected areas, and there is a lack of impact assessment at various autonomy levels. In an area such as Bahawalpur, conducting research on these five aspects through tertiary logistic regression will address a critical void and assist policymakers in making more informed decisions.

2.3. THEORETICAL CONTRIBUTIONS

The research papers concerning women's economic empowerment and entrepreneurship may be categorized into four primary divisions (Table 2). The first category comprises research focusing on women's small and medium-sized enterprises (SMEs) or their overall contribution to the economy (Khatun & Kabir, 2014). They all acknowledge the significance of women's small enterprises for economic development, although they see microcredit in a similar manner. They fail to recognize that various attributes of credit, like length, amount, purpose, type, or accompanying training, might empower women in diverse ways.

Furthermore, the majority of research assesses effectiveness on a continuous or aggregate scale, despite it being an ordinal scale. The second group examines the theoretical components of empowerment, including the creation of indices and the analysis of its many characteristics within a developmental framework (Maiorano et al., 2021). These studies enhance our theoretical understanding; yet, they fail to examine the unique attributes of debt concerning these theoretical frameworks. This is why we lack clarity on the impact of a long-term loan on a woman's decision-making, as well as whether targeted training enhances confidence more effectively than the loan amount itself.

The third category addresses human capital, financial risks, corporate performance, and the capacity to manage external challenges. These studies demonstrate the influence of skills training, non-financial facilitation, and risk comprehension on business outcomes. However, they do not address the fundamental aspects of the loan's design, like the principal amount, repayment schedule, or their impact on creditworthiness. The last category comprises those who see empowerment via the lens of familial, demographic, or health-related contexts. These studies elucidate the context of women's empowerment, including familial dynamics, the effects of the pandemic, and census data (Dempere & Grassa, 2023). However, they fail to provide an in-depth analysis of the many attributes of debt.

A significant limitation across all categories presented in the table is the perception of microcredit as uniform, coupled with the measurement of empowerment being either aggregated or erroneous. In this regard, microcredit will be categorized into five distinct independent variables: duration, amount, training, purpose, and type of loan. This methodology will elucidate the theory by correlating signalling and empowerment concepts with credit attributes, while also providing policymakers and microfinance specialists with recommendations to enhance the development of credit programs aimed at improving women's empowerment in South Punjab.

TABLE 2. SUMMARY OF LITERATURE REVIEW

Authors	Purpose	Gap & Future Direction
(Khatun & Kabir, 2014)	Women SME Entrepreneurs in ensuring women empowerment in Bangladesh: A Study on Women SME Entrepreneurs in Bangladesh.	Gap: Focuses on SMEs broadly, without isolating the effects of microcredit dimensions such as loan duration, size, training, purpose, or type, nor does it use an ordinal measure of empowerment. Future Direction: Examine how specific loan characteristics (duration, size, training, purpose, type) influence women's personal empowerment in Bahawalpur using an ordinal logistic framework.
(Fayyaz, Salahuddin, Nasim, & Ahmed, 2018)	Studying the Impact of Composition of Personal Empowerment on Beneficiaries of Microcredit.	Gap: Analyses empowerment composition but does not link it back to particular loan parameters or distinguish between different loan features. Future Direction: Assess which microcredit features (e.g., longer loan duration or targeted training) drive changes in each empowerment dimension among South Punjab borrowers.
(Sajjad, Kaleem, Chani, & Ahmed, 2020)	Worldwide role of women entrepreneurs in economic development.	Gap: Takes a macroeconomic view of entrepreneurship without exploring microlevel credit attributes or their direct impact on empowerment. Future Direction: Conduct microlevel analysis of how loan size and type contribute to personal empowerment and local economic wellbeing in Bahawalpur.
(Hque, 2017)	Contribution of Women Entrepreneurs in SMEs Among SAARC Countries.	Gap: Examines regional SME contributions but omits investigation of loan-specific variables and ordinal empowerment outcomes. Future Direction: Investigate the role of microcredit parameters (especially loan-related training and purpose) on women's empowerment in rural Pakistan, using a threelevel Likert scale.
(Zeitoun, 2018)	Women Economic Empowerment Study.	Gap: Provides a broad empowerment assessment without tying outcomes to particular microcredit features. Future Direction: Disaggregate empowerment by loan characteristics (e.g., compare short vs. long duration loans) to identify which dimensions most boost agency.
(Belás, Dvorský, Kubálek, & Smrka, 2018)	Important factors of financial risk in the SME segment.	Gap: Centres on risk and financial ratios, rather than how credit design influences borrower empowerment. Future Direction: Link perceived financial risk associated with different loan types and sizes to levels of personal empowerment among women borrowers.
(Al Mamun, Fazal, & Muniady, 2019)	Entrepreneurial knowledge, skills, competencies, and performance.	Gap: Focuses on human capital and business performance without considering how microcredit features enable skill acquisition or empowerment. Future Direction: Evaluate how loan-related trainings embedded in microcredit programs translate into measurable empowerment gains for women in Bahawalpur.
(Nasir, Iqbal, & Akhtar, 2019)	Factors affecting growth of women entrepreneurs in Pakistan.	Gap: Analyses growth drivers but does not examine personal empowerment as an outcome or isolate credit parameters. Future Direction: Model the effect of loan duration and size on women's selfreported empowerment levels, controlling for sociodemographic factors.
(Scrutton & Luttrell, 2007)	The concept and operationalization of empowerment in several development organizations.	Gap: Offers conceptual clarity but lacks empirical testing of microcredit dimensions. Future Direction: Operationalize its empowerment framework by measuring personal empowerment on a 3point scale and linking it empirically to distinct loan characteristics in a rural Pakistani setting.
(Shoma, 2019)	Finance for female entrepreneurs in cottage, micro, small, and medium enterprises: Evidence from Bangladesh's banking sector 2010–2018.	Gap: Reviews financial access broadly without disaggregating loan features or assessing empowerment outcomes. Future Direction: Compare the impact of different loan types (e.g., collateral vs. group loans) on empowerment thresholds among microcredit clients.

Authors	Purpose	Gap & Future Direction
(Santos, Neumeyer, & Morris, 2019)	Entrepreneurship education in a poverty context: An empowerment perspective.	Gap: Emphasizes education interventions without studying the role of loan features in empowerment. Future Direction: Integrate analysis of loan-related training programs with entrepreneurship education to determine combined effects on personal empowerment.
(Kot & Imran, 2019)	The moderating role of environmental disaster in relation to microfinance's nonfinancial services and women's microenterprise sustainability.	Gap: Investigates environmental shocks and nonfinancial services but overlooks core loan parameters, such as duration and size. Future Direction: Test whether loan duration or purpose buffers the negative impact of external shocks on empowerment in Bahawalpur.
(Malapit et al., 2019)	Development of the project-level Women's Empowerment in Agriculture Index (proWEAI).	Gap: Focuses on agricultural empowerment and index construction without linking to microcredit features. Future Direction: Adapt proWEAI dimensions to assess how variations in microcredit (loan size, training) influence empowerment components in nonagricultural contexts.
(Bongaarts, Blanc, & McCarthy, 2019)	The links between women's employment and children at home: Variations in low and middle-income countries by world region.	Gap: Examines employment-family tradeoffs but does not cover credit access or its attributes. Future Direction: Analyse how loan size and purpose affect both empowerment and household responsibilities among rural women borrowers.
(Wazir & Goujon, 2021)	Exploratory Assessment of the Census of Pakistan Using Demographic Analysis.	Gap: Utilizes demographic data descriptively without a focus on microcredit or empowerment. Future Direction: Supplement census insights with primary survey data to link demographic profiles to experiences with different loan types and empowerment outcomes.
(Jaiswal & Chordia, 2022)	The Status of Women Entrepreneurs in India.	Gap: Provides a status overview in India but does not analyse microcredit variables or empowerment measurements. Future Direction: Conduct comparative research to determine if the effects of loan duration and size on empowerment in Pakistan align with those observed in Indian contexts.
(Barni et al., 2022)	Gender Prejudice Within the Family: The Relation Between Parents' Sexism and Their Socialization Values.	Gap: Explores family norms and sexism without connecting them to financial interventions. Future Direction: Investigate how loan training and community sensitization can mitigate familial gender bias and enhance empowerment gains.
(Corburn et al., 2020)	Slum health: arresting COVID-19 and improving wellbeing in urban informal settlements.	Gap: Focuses on health crises and wellbeing, not microcredit. Future Direction: Examine whether targeted loan purposes (e.g., health-related vs. business loans) improve empowerment and resilience during public health emergencies.
(Gafni, Hudon, & Périlleux, 2021)	Business or basic needs? The impact of loan purposes on social crowd funding platforms.	Gap: Examines crowdfunding loans, rather than traditional microcredit for women in rural Pakistan. Future Direction: Compare how varying loan purposes in microcredit programs (e.g., productive vs. consumption) influence personal empowerment levels among women borrowers in South Punjab.

3. RESEARCH METHODS

The study adopted a quantitative approach and investigated the cross-sectional data of randomly selected microcredit banks in Southern Punjab, Pakistan. The survey comprised female microcredit borrowers ranging in age from 18 - 60 years old. The sample was drawn through simple random sampling using stratifying sampling of 400 households' women borrowers, collected by utilising a structured questionnaire to assess the relationship between microcredit and economic life improvement of these women.

Quantitative data were analysed using STATA 15. A simple descriptive analysis and Multinomial Logit and Probit model are used for this purpose.

The testing of the proposition of a theory can be done in two ways: inductively and deductively (Guercini, 2014). Guided by the resource-based theory at the beginning of this research, the deductive approach was utilized. Moreover, the direction of inquiry of this research study followed a descriptive-exploratory approach.

Microcredit serves as a resource to raise the quality of life for the impoverished by providing services such as loans, deposits, and other financial services. Scholars argue that microcredit improves QOL and empowers people, in particular women entrepreneurs (DasGupta, 2018; Dwivedi & Dwivedi, 2022; Fayyaz et al., 2015)

Subsequently, the functional form of our model is:

$$\text{QOL} = f(\text{Microcredit}) \quad (1)$$

Literature mentions four domains of QOL that are: health life improvement, economic life improvement, familial life improvement and household life improvement. We are using economic life improvement as a proxy of QOL by following Fayyaz *et al.* (2018).

$$\text{ELI} = f(\text{Microcredit}) \quad (2)$$

This study employs three dimensions of microcredit, including loan size (LS) (Hoque & Itohara, 2009), loan duration (LD), and loan training (LT). We measure how a woman takes microcredit through a single item. Every respondent is asked to respond to the questions of LS, LD, and LT by using a five-item Likert scale (Table 3).

TABLE 3. DIMENSIONS AND SCALING OF MICROCREDIT

Dimensions of Microcredit	Scale
I. Purpose	1 = New start up
	2 = Existing Business
	3 = Purchase Raw materials
	4 = Buy business equipment
	5 = Personal use
II. Type	1 = Individual Base
	2 = Group
	3 = Collateral Based
	4 = Collateral free loan
	5 = Others
III. Loan Size	1 = 5,000 - 10,000
	2 = 10,000 – 15,000
	3 = 15,000 - 20,000
	4 = 20,000 – 25,000
	5 = 25,000 or more

(Continue)

IV. Loan Duration	1 = 1 - 12 months
	2 = 12 - 24 months
	3 = 24 - 36 months
	4 = 36 - 48 months
	5 = 48 months or more
V. Training	1 = 1 day
	2 = 2 day
	3 = 3 day
	4 = 4 day
	5 = Not at all

For measures of economic life improvement, women respondents are asked separate questions (Table 4). Ordinal logistic regression on a three-point autonomy scale has been implemented in this investigation to comprehend the same methodological and contextual deficiencies directly.

TABLE 4. DIMENSIONS AND SCALING OF ECONOMIC LIFE IMPROVEMENT

Dimensions of ELI	Scale
a. Ability to pay utility bills. b. Dealing with business-related matters c. Participation in income-generating activities. d. Personal savings	1 = Worsen
	2 = Same
	3 = Improved

The econometric model of the above-mentioned constructs is given as:

$$\ln \frac{\text{pr}(\text{ELI}=j)}{\text{pr}(\text{ELI}=m)} = \beta_o + \beta_1 \text{LD}_i + \beta_2 \text{LT}_i + \beta_3 \text{LS}_i + \beta_4 \text{LP}_i + \beta_4 \text{LTY} + e_i \quad (3)$$

Where ELI_i is economic life improvement; LS_i is loan size; LT_i is loan training, LD_i is Loan Duration, LP is Purpose of Loan, and LPY is Type of Loan. Age, Education, Marital Status, and Personal Annual Income are the control variables. Thus, by specifically modifying the multinomial logit model (MNL), the current research examines the economic betterment of women borrowers in remote areas.

4. RESEARCH RESULTS

A total of 400 women borrowers participated in the survey. On average, respondents reported a medium level of personal empowerment (mean = 1.85 on a 3-point scale, SD = 0.62). The mean loan size was PKR 25,000 (SD = 8,500), and 68 per cent of participants attended at least one loan-related training session. The average loan duration was 10 months (SD = 3.2). Participants had an average of 5.2 years of schooling (SD = 3.1), 72 per cent were married, and the average annual personal income was PKR 90,000 (SD = 45,000) as detailed in Table 5.

TABLE 5. DESCRIPTIVE STATISTICS

Variable	Description	Mean / Percentage	Standard Deviation (SD)
Sample Size	Total number of women borrowers surveyed	400	–
Personal Empowerment	Measured on a 3-point Likert scale	1.85	0.62
Loan Size (PKR)	Average loan amount received	25,000	8,500
Loan-Related Training	Attended at least one training session	68%	–
Loan Duration (months)	Average duration of the loan	10	3.2
Education (years)	Average years of schooling	5.2	3.1
Marital Status	Percentage of married participants	72%	–
Annual Personal Income (PKR)	Average annual income of respondents	90,000	45,000

4.1. MULTINOMIAL LOGIT ANALYSIS

Table 6 reports coefficients and marginal effects from a multinomial logit model predicting the relative likelihood of respondents' economic life trajectories—"Worsen Economic Life" and "Stay the Same"—versus the reference category "Improve Economic Life." A one-point increase in loan duration significantly reduces the log-odds of experiencing a worsened economic life ($\beta = -1.165$, $p < 0.05$; marginal effect = -0.111 , $p < 0.05$). There is no significant effect on the "same" outcome. Participation in loan-related training does not significantly alter the odds of worsening, but it significantly lowers the probability of remaining the same rather than improving ($\beta = -0.388$, $p < 0.05$; marginal effect = -0.068 , $p < 0.05$). Loan size exhibits a negative, non-significant coefficient for the "worsen" outcome ($\beta = -0.209$, $p > 0.10$) and a small positive, non-significant coefficient for the "same" ($\beta = 0.059$, $p > 0.10$). Loans earmarked for productive purposes do not significantly affect the odds of a worsened outcome but are marginally associated with a higher likelihood of no change versus improvement ($\beta = 0.252$, $p < 0.10$; marginal effect = 0.050 , $p < 0.10$). The design or modality of the loan significantly reduces the odds of both worsening ($\beta = -0.722$, $p < 0.05$; marginal effect = -0.025 , $p < 0.05$) and staying the same ($\beta = -0.934$, $p < 0.001$; marginal effect = -0.160 , $p < 0.001$).

Among controls, greater personal empowerment at baseline strongly decreases the likelihood of both decline and stagnation ($\beta = -1.828/-1.717$, $p < 0.001$), and each additional year of education significantly protects against worsening ($\beta = -0.474$, $p < 0.10$). Age and marital status show no robust effects on decline, though older age is marginally linked to stagnation ($\beta = 0.272$, $p < 0.10$). Unexpectedly, higher annual income increases the odds of worsening ($\beta = 0.418$, $p < 0.10$).

4.2. ODDS RATIOS

Transforming the logit coefficients into odds ratios (OR) clarifies effect magnitudes (Table 6). A one-unit increase in loan duration reduces the

odds of a worsened outcome by 69 per cent ($OR=0.311$, $Z=-2.02$), while training cuts the odds of stagnation by 32 per cent ($OR=0.678$, $Z=-2.16$). Group-oriented loan types halve the odds of both decline ($OR=0.483$, $Z=-2.19$) and stagnation ($OR=0.392$, $Z=-3.77$). Baseline empowerment reduces odds of non-improvement by 84 per cent ($OR=0.16-0.18$, $Z\approx-5.0$).

4.3. PROBIT MODEL

A parallel probit specification (Table 6) yields consistent inferences. Loan duration significantly lowers the probability of decline ($\beta = -0.978$, $p<0.05$), and training significantly reduces the probability of stagnation ($\beta = -0.304$, $p<0.05$). Loan type again shows strong negative coefficients for both contrasts ($\beta = -0.462/-0.716$, $p<0.01$) and baseline empowerment remains the most potent predictor of improvement ($\beta = -1.255/-1.281$, $p<0.001$).

Longer repayment periods and effective loan modalities markedly decrease the risk of both economic decline and stagnation. Complementary training is critical for elevating borrowers from “same” to “improve.” Pre-existing agency and schooling safeguard against negative trajectories. Neither the sheer amount nor the intended use of credit significantly propels improvement, though productive purposes may stabilize outcomes. Higher initial income predicts a greater risk of decline, suggesting a potential “loss” effect that merits further qualitative investigation.

5. DISCUSSION

This investigation was undertaken to determine the extent to which the economic circumstances of women in Bahawalpur, South Punjab, are affected by the five key components of microcredit: loan tenure, loan amount, loan training, loan purpose, and loan type. For this purpose, three levels of personal autonomy were implemented. The multinomial logit and probit models revealed that the likelihood of economic decline is reduced by approximately 70% when additional time is provided to repay the loan. Consequently, time-based facilitation is highly beneficial. It illustrated that the loan tenure must be designed to correspond with the income and expenditure cycle of the borrowers. This result echoes Can (2025), and Christodoulou et al. (2024) suggesting the effectiveness of long-term loans.

Additionally, the Resource Dependence Theory asserts that long-term debt alleviates long-term financial tension, bolsters financial self-confidence (Chowdhury et al., 2020), and increases savings. Conversely, the actual amount of debt did not seem to have a substantial impact on economic improvement or deterioration (Garikipati, 2013). This implies that providing more money may not be beneficial unless it is accompanied by additional support. On the other hand, the loan training enabled the women to transcend their current circumstances and progress toward a more prosperous future. Training significantly reduced the likelihood of maintaining the same. The impact of

TABLE 6. RESULTS OF MULTINOMIAL LOGIT, MARGINAL, ODDS RATIO, AND PROBIT MODEL EFFECT

Dependent Variable	Economic Life Improvement									
	Multinomial Logit model					Odds Ratio				
	Worsen ELI	Marginal	Coef	Same ELI	Marginal	Worsen ELI	Z	Odds	Same ELI	Z
Cons	6.35***	-	5.01***	-	-	575.7***	2.91	150.07**	3.10	4.217**
Loan Duration	-1.165**	-0.111**	-0.420	-0.0468	0.311**	-2.02	-2.02	0.656	-1.70	-0.978**
Training	-0.273	-0.009	-0.388**	-0.068**	0.760	-1.12	-1.12	0.6777**	-2.16	-0.185
Loan Size	-0.209	-0.023	0.059	0.012	0.810	-0.68	-0.68	1.0616	0.27	-0.172
Loan Purpose	0.228	0.012	0.252*	0.050*	1.256	0.97	0.97	1.287*	1.30	0.178
Type of Loan	-0.722**	-0.025	-0.934***	-0.160***	0.483**	-2.19	-2.19	0.392***	-3.77	-0.462**
Personal Empowerment	-1.828***	-0.103**	-1.717***	-0.266	0.160***	-4.31	-4.31	0.179***	-5.03	-1.255***
Age	-0.028	-0.012	0.272*	0.0518	0.971	0.917	0.917	1.313*	1.44	-0.016
Education	-0.474*	-0.049*	0.125	0.0353	0.6221*	0.151	0.151	1.134	0.59	-0.346*
Marital Status	0.232	0.034*	-0.133	-0.0307	1.261	0.434	0.434	0.874	-0.58	0.234
Personal Annual Income	0.418	0.0473**	0.046	-0.006	1.520*	1.56	1.56	1.047	0.26	0.372**
LR χ^2 (20)	154.76		Log likelihood		-293.90452			Number of observations		400
Prob > χ^2	0.0000		Pseudo R ²		0.2084					

Note: coefficient *** is significant at the 1 per cent ($p < 0.01$), ** is significant at the 5 per cent ($p < 0.05$) and * is significant at the 10 per cent ($p < 0.10$) level, respectively. Improved ELI is the base outcome.

debt is further exacerbated by capacity-building, which is consistent with the existing research (e.g. Andriamahery & Qamruzzaman, 2022; Mberia & Wachira, 2021; Rahmawati et al., 2023).

The lending method was also of significant importance; the most apparent distinction was in the type of loan, such as a social guarantee or group loan. The likelihood of both stagnation and decline was reduced by half pursuant to these methodologies. Through mutual responsibility and shared values among colleagues, the efficiency of collective decision-making and cooperation at home was enhanced in these models. This finding is in line with Bonin et al. (2024).

Stagnation is only marginally increased by loans that were specifically granted for business objectives, but there is no discernible improvement. These findings indicate that goal-based lending enhances outcomes but does not promote internal development. Women who possessed a greater degree of personal autonomy or education were less likely to be in impoverished economic circumstances or to remain in them at the outset (Sabouri et al., 2016). Against the collapse, each additional academic year served as a safeguard. Therefore, microcredit appears to be more advantageous. When there is consideration for pre-existing knowledge and social relationships. In an unexpected twist, women who experienced an increase in their personal income were also more susceptible to decline. This may be because they have a greater amount to lose or they make more hazardous decisions. Further investigation is necessary.

In general, the research provided significant insights, both theoretically and practically: debt is not the same entity, but its characteristics including its duration, manner of giving, and training, actually dictate its influence. In practical terms, this implies that microfinance institutions should prioritize long-term lending, offer comprehensive training, and implement strategies such as social guarantees to enable women to advance.

5.1. LIMITATIONS

We are unable to definitively determine the cause and effect of this investigation due to its cross-sectional design. It is evident that there is a profound correlation between the specifics of debt and economic trajectories; however, borrowing, and hence outcomes, may also be influenced by factors that we did not quantify, such as personal motivation or household support. Given that we have implemented self-reported inquiries, the issue may arise from individuals providing socially acceptable responses or failing to recall the truth, regardless of whether it is our straightforward three-choice questionnaire.

Our findings may be limited to the population of Bahawalpur and may not be applicable to other regions, as we specifically selected individuals from partner microfinance institutions in this area. Women who are less connected to the traditional borrowing system or are more challenging to meet may experience a variation in their autonomy.

We made every effort to ensure that the calculations were accurate; however, our ordinal logistics model may be influenced by factors such as the husband's behaviour or the customs of the community, which we neglected to incorporate.

Lastly, the inverse relationship between initial returns and decline after borrowing may indicate that certain individuals are taking on additional risk or that the effect is traveling in the opposite direction. Consequently, it is important to exercise caution when elucidating this phenomenon.

5.2. IMPLICATIONS

Our discoveries are significant in both their theoretical and practical implications. This research theoretically posits that it is insufficient to provide individuals with money merely; instead, specific lending methods, including loan tenure, training, and remittance models, are also crucial for human empowerment. It also implies that it is more advantageous to regard autonomy as a process that develops gradually rather than as an abrupt event, as these concepts undergo gradual transformations and are not typically perceived in a conventional manner.

In practice, microfinance institutions should not provide the same loan bundle to all borrowers. Instead, they should make instalments by considering the income flow of the individual, providing quality training, and implementing a group or social guarantee model to enable borrowers to make more progress. By initially evaluating the degree of autonomy and education, microfinance institutions can identify clients who require more extensive support or a larger loan. This is why policymakers and donors should prioritize credit and capacity-building initiatives over solely lending.

5.3. FUTURE DIRECTIONS

As a result of this research, it is imperative to conduct long-term panel studies to ascertain the actual cause of autonomy and its formation over time. Future research should incorporate long-term planning. To investigate the extent to which autonomy increases over multiple loan cycles and to comprehend the reasons for a decline despite higher revenues, interviews should be conducted. Qualitative research, such as in-depth interviews or focus groups, can help understand the reasons why specific individuals with higher incomes are more susceptible to risk and the role that social relationships play in the success of group borrowing. This can verify the validity of our findings and their influence on others by conducting comparable research in other rural or urban regions of Pakistan.

In terms of research methodology, generalized ordered logit or mixed effects models may be more suitable, as they can account for unobservable community-level factors and area differences. Additionally, the new digital lending platforms will be examined to determine the potential benefits that

they can provide to women. The integration of mobile money and digital lending platforms can be a promising method of providing women in underserved areas with more specific, data-driven, and empowered lending facilities.

6. CONCLUSIONS

The study aimed to investigate how the features of microcredit—loan duration, size, training, purpose, and type—shape women's economic lives in Bahawalpur, a region where traditional norms often confine them to the home. Surveying 400 female borrowers, we found that longer repayment terms and structured training significantly reduce the risk of decline and accelerate upward mobility. At the same time, group-based lending models harness social support to amplify progress. Although larger loan amounts and earmarked purposes helped stabilize household welfare, they did not by themselves drive the leap from stagnation to improvement. Crucially, women with higher baseline empowerment and more years of schooling fared best, underscoring the need to build human capital alongside credit access.

These findings confirm that microcredit can be a genuine catalyst for personal empowerment—but only when loans are tailored to borrowers' cash-flow cycles, accompanied by capacity-building services, and delivered through supportive, community-oriented structures. Policymakers and microfinance providers should therefore prioritize extended tenors, embed robust training modules, and engage male family members in gender-sensitization initiatives to break down cultural barriers. Investing in women's education and in social infrastructure that eases both mobility and domestic responsibilities will further reinforce gains. Future research should track empowerment over multiple loan cycles, explore the unexpected link between higher initial incomes and risk of decline, and assess how digital credit platforms might broaden women's opportunities in underserved rural areas.

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REFERENCES

- Abdallah Ali, M., Mughal, M., & Chhorn, D. (2024). Empowering women through microcredit in Djibouti. *Review of Development Economics*, 28(3), 1031-1062.
- Abebe, A., & Kegne, M. (2023). The role of microfinance institutions on women's entrepreneurship development. *Journal of Innovation and Entrepreneurship*, 12(1), 17.
- Al Mamun, A., Fazal, S. A., & Muniady, R. (2019). Entrepreneurial knowledge, skills, competencies and performance: A study of micro-enterprises in

- Kelantan, Malaysia. *Asia Pacific Journal of Innovation and Entrepreneurship*, 13(1), 29-48.
- Al-shami, S. A., Al Mamun, A., Rashid, N., & Al-shami, M. (2021). Microcredit impact on socio-economic development and women empowerment in low-income countries: evidence from Yemen. *Sustainability*, 13(16), 9326.
- Andriamahery, A., & Qamruzzaman, M. (2022). Do access to finance, technical know-how, and financial literacy offer women empowerment through women's entrepreneurial development? *Frontiers in Psychology*, 12, 776844.
- Barni, D., Fiorilli, C., Romano, L., Zagrean, I., Alfieri, S., & Russo, C. (2022). Gender prejudice within the family: The relation between parents' sexism and their socialization values. *Frontiers in Psychology*, 13, 846016.
- Basumatary, H., Chhetri, P. C., & Raj SN, R. (2023). Hitting the target, missing the point? Microcredit and women empowerment in rural India. *Journal of Poverty*, 27(3), 217-234.
- Belás, J., Dvorský, J., Kubálek, J., & Smrčka, L. (2018). Important factors of financial risk in the SME segment. *Journal of International Studies*.
- Bongaarts, J., Blanc, A. K., & McCarthy, K. J. (2019). The links between women's employment and children at home: Variations in low-and middle-income countries by world region. *Population studies*, 73(2), 149-163.
- Bonin, S., Rashed, T., Nair, R., Chaudhary, S., VR, B., Natarajan, A., & Bhavani, R. (2024). A financial maturity model for the empowerment of women's saving groups. *World Development Perspectives*, 34, 100573.
- Castillo, Y., & Álvarez, I. (2024). The impact of Gender Diversity on Innovative Performance: Empirical Analysis in the Caribbean Region. *Revista de Economía Mundial*, (68), 25-46.
- Can, H. F. F. P. (2025). Paying Off. *Women Transforming the Future of Higher Education*, 119.
- Cherotich, J., Sibiko, K. W., & Ayuya, O. I. (2022). Analysis of extent of credit access among women farm-entrepreneurs based on membership in table banking (TB). *Agricultural Finance Review*, 82(1), 89-112.
- Chowdhury, T. E. C. T. E., Chowdhury, R. C. R., Alam, S. S. A. S. S., & Sazzad, S. A. S. S. A. (2020). Empowering Change: The Impact of Microcredit on Social Business Development. *Pathfinder of Research*, 1(1), 13-13.
- Christodoulou, I., Haj Youssef, M., Wasim, J., Phan, T. T. T., Reinhardt, R., & Nguyen, B. N. (2024). Breaking barriers: unveiling motivations, challenges and policy recommendations for women's entrepreneurship in Vietnam. *Journal of Asia Business Studies*, 18(6), 1541-1566.
- Cohen, L., & Wirtz, P. (2022). Decision-making style in entrepreneurial finance and growth. *Small Business Economics*, 1-28.
- Corburn, J., Vlahov, D., Mberu, B., Riley, L., Caiaffa, W. T., Rashid, S. F., . . . Martínez-Herrera, E. (2020). Slum health: arresting COVID-19 and improving well-being in urban informal settlements. *Journal of urban health*, 97, 348-357.

- DasGupta, M. (2018). Literature review on micro entrepreneurship development and quality of life improvement. *International Journal of Multidisciplinary*, 3(3), 54-60.
- Dempere, J., & Grassa, R. (2023). The impact of COVID-19 on women's empowerment: A global perspective. *Journal of Global Health*, 13, 06021.
- Dotsey, S. (2022). COVID-19 and microcredit: dissecting an NGO's training, financial support, and women empowerment programmes. *Social Sciences*, 11(9), 402.
- Dwivedi, N. T., & Dwivedi, A. K. (2022). Understanding impact of microcredit on socio-economic status of women micro-entrepreneurs. *International Journal of Business and Globalisation*, 30(2), 262-278.
- Fayyaz, S., Abdul Hakim, R., & Mohd Khan, S. J. (2015). Microcredit, personal empowerment and quality of life of women borrowers—a theoretical framework. *Journal of Business and Social Review in Emerging Economies*, 1(2), 56-63.
- Fayyaz, S., Salahuddin, T., Nasim, I., & Ahmed, A. (2018). Studying the Impact of Composition of Personal Empowerment on Beneficiaries of Microcredit. *Pakistan Journal of Economic Studies (PJES)*, 1(2), 153-164.
- Fieve, J. K. D., & Chrysostome, E. V. (2024). Credit cooperative lending loans as challenges and opportunities for women entrepreneurship in Africa: evidence from Ghana. *Journal of African Business*, 25(1), 94-114.
- Gafni, H., Hudon, M., & Périlleux, A. (2021). Business or basic needs? The impact of loan purpose on social crowdfunding platforms. *Journal of business ethics*, 173, 777-793.
- Garikipati, S. (2013). Microcredit and women's empowerment: Have we been looking at the wrong indicators? *Oxford Development Studies*, 41(sup1), S53-S75.
- Gigauri, I. (Ed.). (2025). *Sustainable Entrepreneurship and Family Business for Women's Empowerment*. IGI Global. <https://doi.org/10.4018/979-8-3693-8694-1>
- Gigauri, I., Janjua, L. R., Panait, M., & Guillen, F. P. (2023). Exploring the nexus between financial inclusion, poverty, digitalization and sustainable development goal. *Lumen Proceedings*, 19, 63-81.
- Goel, M., & Ravishankar, N. (2022). Impact of public policy and legislation on autonomy and empowerment of women in India. *Gender Issues*, 39(2), 198-219.
- Guercini, S. (2014). New qualitative research methodologies in management. *Management decision*, 52(4), 662-674.
- Jaim, J. (2021). Bank loans access for women business-owners in Bangladesh: Obstacles and dependence on husbands. *Journal of Small Business Management*, 59(sup1), S16-S41.
- Jaiswal, R., & Chordia, R. (2022). The Status of Women Entrepreneurs in India. *New Horizons In Business World*, 15.

- Henry, C., Coleman, S., Orser, B., & Foss, L. (2022). Women's entrepreneurship policy and access to financial capital in different countries: An institutional perspective. *Entrepreneurship Research Journal*, 12(3), 227-262.
- Hque, U. (2017). Contribution of women entrepreneurs in SMEs among SAARC countries. *International Journal of Humanities and Social Sciences (IJHSS)*, 6(6).
- Jaiswal, R., & Chordia, R. (2022). The Status of Women Entrepreneurs in India. *New Horizons In Business World*, 15.
- Kengne, S. K. (2022). A resource dependence theory perspective on low savings, cost of capital, leverage and bank valuation in South Africa. *Macroeconomics and Finance in Emerging Market Economies*, 1-25.
- Khatun, F., & Kabir, A. (2014). Women SME Entrepreneurs in ensuring women empowerment in Bangladesh: A Study on Women SME Entrepreneurs in Bangladesh. *American international journal of research in humanities, Arts and social sciences*, 5(1), 61-65.
- Khursheed, A., Khan, A. A., & Mustafa, F. (2021). Women's social empowerment and microfinance: A brief review of literature. *Journal of international women's studies*, 22(5), 249-265.
- Kot, S., & Imran, M. (2019). THE MODERATING ROLE OF ENVIRONMENTAL DISASTER IN RELATION TO MICROFINANCE'S NON-FINANCIAL SERVICES AND WOMEN'S MICRO-ENTERPRISE SUSTAINABILITY. *Journal of Security & Sustainability Issues*, 8(3).
- Llorente, M. C. M., Arechavala, N. S., & Prieto, C. G. (2023). European workers' health and well-being: Do gender gaps persist between 2010 and 2015? *Revista de economía mundial*, (63), 117-137.
- Maiorano, D., Shrimankar, D., Thapar-Björkert, S., & Blomkvist, H. (2021). Measuring empowerment: Choices, values and norms. *World development*, 138, 105220.
- Malapit, H., Quisumbing, A., Meinzen-Dick, R., Seymour, G., Martinez, E. M., Heckert, J., . . . Phase, G. A. A. P. (2019). Development of the project-level Women's Empowerment in Agriculture Index (pro-WEAI). *World development*, 122, 675-692.
- Mberia, C., & Wachira, K. (2021). Influence of budgeting and debt management literacy training on financial performance of equity bank trained women self help groups in Machakos town, Kenya. *International Journal of Entrepreneurship and Project Management*, 6(1), 1-11.
- Muthama, K., & Warui, F. (2021). Influence of lending terms on loan performance of microfinance institutions in Kisii County (Case Study; Kenya Women Microfinance Bank). *International Academic Journal of Economics and Finance*, 3 (7), 21, 3(7), 21-44.
- Nasir, M., Iqbal, R., & Akhtar, C. S. (2019). Factors affecting growth of women entrepreneurs in Pakistan. *Pakistan Administrative Review*, 3(1), 35-50.
- Rahmawati, A., Wahyuningsih, S. H., & Garad, A. (2023). The effect of financial literacy, training and locus of control on creative economic business performance. *Social Sciences & Humanities Open*, 8(1), 100721.

- Raimi, L., Panait, M., Gigauro, I., & Apostu, S. A. (2023). Thematic review of motivational factors, types of uncertainty, and entrepreneurship strategies of transitional entrepreneurship among ethnic minorities, immigrants, and women entrepreneurs. *Journal of Risk and Financial Management*, 16(2), 83.
- Sabouri, M. S., Saberian, M., Arayesh, M. B., & Garmsar, I. (2016). The Role of Socioeconomical Factors of Micro-credit Funds in Improving Rural Women Entrepreneurship Development. *Journal of Sustainable Development*, 9(5), 187-199.
- Sajjad, M., Kaleem, N., Chani, M. I., & Ahmed, M. (2020). Worldwide role of women entrepreneurs in economic development. *Asia Pacific Journal of Innovation and Entrepreneurship*, 14(2), 151-160.
- Saleh, M., KR, M., & Qaied, M. M. (2021). Exploring Entrepreneurial Attitudes among Youth in Least Developed Countries: Empirical Evidence from Yemen. *FOCUS: Journal of International Business*, 8(1).
- Santos, S. C., Neumeyer, X., & Morris, M. H. (2019). Entrepreneurship education in a poverty context: An empowerment perspective. *Journal of Small Business Management*, 57, 6-32.
- Scrutton, C., & Luttrell, C. (2007). The definition and operationalisation of empowerment in different development agencies. *Consultado a*, 28, 2010.
- Shoma, C. D. (2019). Financing female entrepreneurs in cottage, micro, small, and medium enterprises: Evidence from the financial sector in Bangladesh 2010–2018. *Asia & the Pacific Policy Studies*, 6(3), 397-416.
- Showkat, M., Nagina, R., Nori, U., Baba, M. A., & Shah, M. A. (2024). Empowering women in the digital age: can digital financial services fulfil the promise of financial autonomy and gender equality in the attainment of Sustainable Development Goal 5? *Cogent Economics & Finance*, 12(1), 2342459.
- Wazir, A., & Goujon, A. (2021). Exploratory assessment of the census of Pakistan using demographic analysis. *Journal of Official Statistics*, 37(3), 719-750.
- World Bank (2017). *Women Entrepreneurs Finance Initiative*. Retrieved January 4, 2025 from <https://www.worldbank.org/de/programs/women-entrepreneurs>
- Zeitoun, N. A. M. S. (2018). Women Economic Empowerment Study: The World Bank.

