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Assessing the Role of Microfinance Programs in Enhancing the Socio-Economic Empowerment of Rural Women in Karnali Pradesh, Nepal

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Abstract

Microfinance has emerged as a transformative instrument for advancing socio-economic development in marginalized communities, particularly among rural women. In Karnali Pradesh, Nepal where economic opportunities are scarce and infrastructure remains underdeveloped women's entrepreneurial capacity is constrained by limited access to credit, low literacy levels, and socio-cultural barriers. This study investigates the extent to which microfinance programs enhance the economic and social empowerment of rural women entrepreneurs in the region. Using purposive sampling, primary data were collected from 124 women affiliated with microfinance institutions such as Nirdhan Utthan, Mahila Sahayogi, and Chhimek Laghu Bitta. Structured questionnaires captured pre- and post-program indicators. Statistical analyses, including paired sample t-tests, Wilcoxon signed-rank tests, and McNemar tests in SPSS, evaluated changes in business performance, savings, expenditures, asset ownership, decision-making autonomy, mobility, social relationships, education, and health status. Findings reveal significant improvements in both economic empowerments manifested in higher daily sales, customer flow, investment, savings, and asset acquisition and *social empowerment, reflected in greater decision-making authority, mobility, social bonds, and access to education and healthcare. The study concludes that microfinance acts as a multidimensional catalyst for women's empowerment, fostering financial independence and promoting inclusive rural development. It recommends expanding microfinance services alongside integrated training to strengthen entrepreneurial competencies and dismantle structural barriers, thereby contributing to gender equality and sustainable economic growth.*

Keywords: Economic empowerment, microfinance, social empowerment, rural development women's empowerment

Introduction

Microfinance has become an important mechanism for delivering financial services to disadvantaged populations, providing small-scale credit, savings facilities, and capacity-building initiatives that aim to reduce poverty and promote inclusive development (Nepal Rastra Bank, 2011). Its hallmark features include unsecured loans, simplified documentation, flexible repayment schedules, and group-based lending models that strengthen collective responsibility (Momba, 2013). The World Bank (2017) reports that over 200 million clients worldwide benefit from microfinance, as governments and development agencies recognize its capacity to generate both economic and social benefits. By enabling access to capital, microfinance empowers households to start income-generating activities, enhance property ownership, and improve access to education, healthcare, and basic consumption needs (Hermes & Lensink, 2011). Women's entrepreneurship is widely acknowledged as a critical driver of poverty reduction and economic growth, with unique potential to advance social equity (Mayoux, 2001a; Bushell, 2008). Entrepreneurial women often display self-confidence, resourcefulness, and innovative thinking, yet face structural obstacles in accessing finance and markets (Khanka, 2009; Gobbi, Dhakal & Hijazi, 2005).

Microfinance institutions (MFIs) address these constraints by providing financial and non-financial support to Micro, Small, and Medium Enterprises (MSMEs) owned by women, contributing to employment generation, income growth, and capital expansion (Muktar, 2009). Studies by Loice & Razia (2013) and Soltane & Imen (2013) confirm that access to financial capital enhances women's business growth and decision-making capacity. In Nepal, the introduction of Grameen Bikash Bank in the 1990s marked a significant milestone in targeting underprivileged women through non-collateral group lending. By mid-2018, 63 licensed MFIs were serving approximately 1.8 million women across the country (NRB, 2018), employing variations of the Grameen Model to advance social transformation and economic empowerment. Nevertheless, persistent socio-cultural barriers, low literacy levels, and concentration in low-profit sectors limit women's potential (Ekpe et al., 2010). Many women juggle business activities with household responsibilities and encounter difficulties securing loans due to limited collateral, restricted mobility, and entrenched gender norms.

In this context, microfinance emerges not merely as a poverty alleviation tool, but as a strategic intervention to promote gender equality and sustainable rural development. However, as Mayoux (1997) and Rahman (1999) caution, microfinance can also impose additional burdens if loan benefits are diverted or if increased workloads are not matched with equitable household support. Understanding the balance between its empowering and challenging aspects is essential. This study therefore aims to assess how microfinance participation influences both the economic and social empowerment of rural women entrepreneurs in Karnali Pradesh, Nepal, by comparing conditions before and after engagement in microfinance programs.

Review of Literature

The evaluation of empowerment relies on implicit and multidimensional metrics that capture both tangible and intangible changes in women's lives, with common indicators including control over resources, decision-making power at household and community levels, spatial mobility, and self-esteem in both domestic and public domains (Kabeer, 2001). Microfinance services have been shown to strengthen women's economic position by supporting Microfinance services have been shown to strengthen women's economic position by supporting female-led entrepreneurial activities, which subsequently increase income, productivity, employment opportunities, and savings rates (Mayoux, 2000). Access to microfinance frequently results in the expansion of female entrepreneurship, as these services demonstrate positive effects on entrepreneurial activity (Shane, 2003). Women constitute approximately 70% of the world's disadvantaged population and face disproportionately limited access to financial credit and related services; consequently, microfinance programs often prioritize women beneficiaries (Arora, 2011). These initiatives typically offer small business loans through microenterprise development programs aimed at enhancing domestic empowerment (Chowdhury, 2009). Empirical findings indicate that participation in microfinance promotes business growth, strengthens social standing, and improves business management skills (Ablorh, 2011). Training and facilitation services provided by microfinance institutions (MFIs) further enhance women's confidence in managing independent enterprises. Increased asset ownership, as reported by Rehman, Moazzam, and Ansari (2015), has been linked to greater economic independence among women borrowers. Comparable studies (Dzisi, Lichtenstein, & Van Vuuren, 2008; Pokhriyal, Rani, & Uniyal, 2014) reveal that access to microfinance leads to higher profitability, expansion in employee numbers, and improved savings behavior. Additionally, specialized MFIs contribute to increased mobility, educational attainment, and community participation (Alshebami & Khandare, 2015).

Microfinance is also associated with substantial improvements in decision-making authority, particularly concerning household expenditure, asset control, children's education, and healthcare (Rehman et al., 2015). Research conducted by Pokhriyal et al. (2014) and Air (2013) further documents enhanced mobility among women engaged in microfinance programs, enabling greater participation in markets, community gatherings, and training opportunities. Broader empowerment outcomes include increased self-confidence, stronger self-esteem, improved management capacities, and expanded financial literacy (Vogelgesang, 2001; Economic and Social Research Council [ESGC], 2004). Nonetheless, not all impacts are uniformly positive. Afrane (2002) cautions that increased business responsibilities may contribute to stress and reduced personal well-being. Ali and Hatta (2012) argue that microfinance alone does not ensure meaningful empowerment if program objectives are narrowly focused on loan disbursement and repayment. Furthermore, Haile, Bock, and Folmer (2012) contend that empowerment outcomes are maximized when MFIs embed empowerment as a central mission rather than treating it as a by-product of financial services.

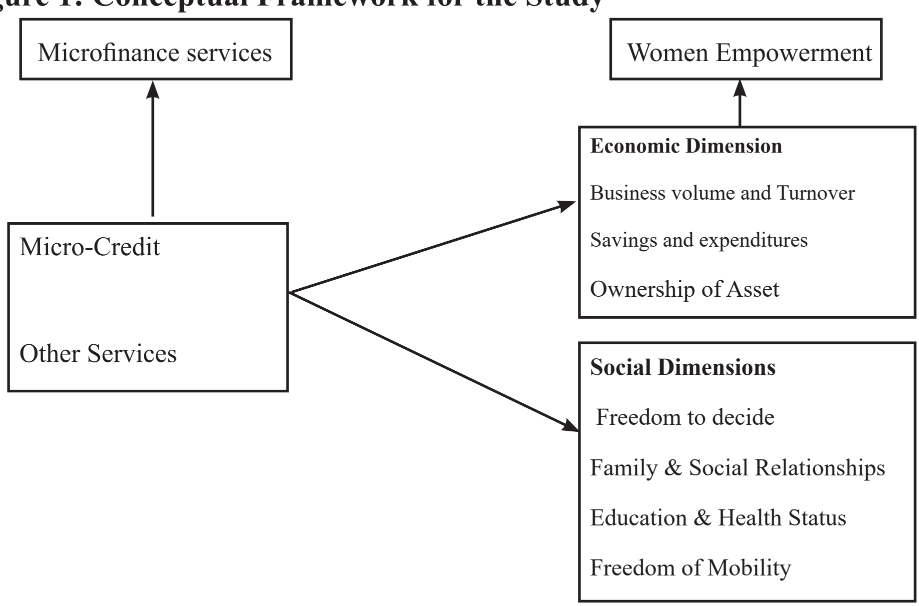
Review of Recent Empirical Works

Recent global studies have reaffirmed the dual economic and social impacts of microfinance, while also identifying limitations. For instance, Naeem et al. (2015) found that women borrowers in Pakistan experienced significant growth in sales and net income, but the sustainability of such gains depended on continuous access to capital and market linkages. Al-Mamun et al. (2014) observed that higher savings rates among Malaysian microfinance clients enhanced both household resilience and business investment capacity. Conversely, some works (e.g., Haile, Bock & Folmer, 2012) have documented cases where increased financial responsibility did not translate into long-term autonomy, particularly when patriarchal norms constrained women's decision-making freedom.

Review of Nepalese Studies

In Nepal, microfinance interventions have been implemented since the 1990s, with the Grameen Bikash Bank model adapted across various institutions to target women in rural areas. Gobbi, Dhakal, and Hijazi (2005) highlight that while women actively participate in Micro, Small, and Medium Enterprises (MSMEs), business ownership remains low due to limited access to start-up capital. Studies such as those by Pokhriyal, Rani, and Uniyal (2014) show that Nepalese women using microfinance services achieve notable improvements in income, savings, and mobility, while Rahman (1999) warns that loan diversion to male family members can undermine empowerment goals. NRB (2018) data reveal that 63 licensed MFIs served 1.8 million women by mid-2018, yet challenges remain, including low literacy rates, concentration in low-profit retail sectors, and inadequate business management training. Overall, the Nepalese evidence underscores both the transformative potential and the contextual constraints of microfinance as a tool for women's empowerment.

Figure 1: Conceptual Framework for the Study



The analysis of microfinance effects on women entrepreneur empowerment develops through constructed hypotheses drawn from earlier empirical research and conceptual framework studies.

Hypothesis 1 (H1): The revenue of enterprises under female entrepreneur management rises because of microfinance support.

Hypothesis 2 (H2): Enterprise success increases through microfinance initiatives directed at female business owners.

Hypothesis 3 (H3): When women participate in microfinance programs their personal savings levels experience substantial improvement. Hypothesis 4 (H4): After obtaining microfinance access women show a large-scale increase in their budget allocations for household needs.

Hypothesis 5 (H5): The ownership of assets unexpectedly rises dramatically for women after they participate in microfinance programs.

Hypothesis 6 (H6): Within the family structure women receiving microfinance services operate independently to make key business-related choices.

Hypothesis 7 (H7): The familial and social inter factions of female entrepreneurs show marked improvement after their participation in microfinance programs.

Hypothesis 8 (H8): Women entrepreneurs maintain enhanced mobility once they receive microfinance services from institutions (MFIs).

Hypothesis 9 (H9): Accessing microfinance activities leads to substantial improvements in medical statistics among participants.

Hypothesis 10 (H10): The educational results of women show vast improvements when they join microfinance initiatives.

Methodology

The researchers gathered their information via systematic questionnaires for this study. The questionnaire consisted of four separate sections: These sections analyze a) respondent demographics alongside b) their employment in microfinance loan services and c) financial transformations and d) social benefits from employment activities. The study conducted a questionnaire survey in Karnali Pradesh. The western Nepalese region of Karnali Pradesh shows its characteristics through rough mountains that meet minimal growth infrastructure. The 2021 census recorded 1.7 million residents in the province. Nepal shows an economic discrepancy through a per capita income captcha of NPR 55,000 that sits way below the country's average economic output.

The microfinance sector launched operations in Karnali Pradesh about two decades back. Northern Karnali Pradesh's population of approximately one million people benefits from three prominent institutions: Nirdhan Utthan Microfinance, Mahila Sahayogi Microfinance, and Chhimek Laghu Bitta. Research investigators collected names and addresses and contact information from female borrowers who borrowed funds through microfinance entrepreneurship programs from these organizations. Research assistants built a complete database of assessed small business owners before randomly selecting participants to join the survey assessment. Researchers limited their work to clients willing to share information during face-to-face meetings. Ten clients were surveyed during the preliminary stage to improve the survey questions. Both key study variables and time periods before and after program engagement in microfinance were gathered from participants. An assessment was performed to determine how women entrepreneurs reacted to changes in their social and economic empowerment indicators. A large-scale survey occurred between March and April 2023. Research involved a survey of 124 microfinance borrowers who operated businesses and recorded their survey responses. The respondents obtained loans averaging NPR 120500 which ranged from minimum NPR 25000 to maximum NPR 450000. This paper incorporates numerical datasets for analysis. SPSS software received all responses after completing the interview process and applying coding. The data cleansing process led to a complete dataset containing 124 responses after its completion. The research displays drawn from survey participants' demographic characteristics along with microfinance service statistics in forms that depict both frequencies and percentiles. A full array of descriptive statistical analyses including the calculation of mean values and standard deviations was conducted to grasp the fundamental features of the collected data. The analysis employed the Paired Sample t-test for metric variables whereas non-metric data used Wilcoxon and McNemar tests to validate hypotheses.

Results and Discussion

This segment includes a summary of respondent characteristics alongside findings about microfinance-driven economic and social development for women business owners. A thorough discussion follows.

Profile of Participants

Participants in this research study belong to Surkhet District who used microfinance institutions for starting or extending their business ventures. The demographic characteristics of 124 women entrepreneurs accessing microfinance services from microfinance institutions are condensed in Table 1.

Variable Category	Sub-Category	Number	Percent (%)
Age	Less than 30	15	12.1
	30-40	65	52.4
	41-50	35	28.2
	51 & above	9	7.3
Type of Business	Agriculture	2	1.6
	Animal Husbandry	10	8.1
	Shop	100	80.6
	Vehicle Purchase	12	9.7
Education	Below SLC	80	64.5
	SLC	25	20.2
	Intermediate	10	8.1
	Under-graduate	5	4.0
	Graduate	4	3.2
Family Members	Less than 5	70	56.5
	5-10	45	36.3
	10-15	8	6.5
	15 & above	1	0.8

A complete breakdown of population allocation is shown in the provided table across multiple group classifications including age groups and company type and educational status and family composition. Under this analysis the age groups of 30-40 each contain 52.4% of respondents while these two categories combined represent the largest demographic segment. The youngest age bracket contains twelve percent of respondents while older individuals older than 51 account for seven percent. Elective retail trading stands as the main economic engagement for most respondents (80.6%) according to statistics on company classification. The remaining sectors demonstrate minimal participation as Vehicle acquisition stands at 9.7% Livestock farming at 8.1% while Agriculture accounts for 1.6% of the population.

Education statistics show that most individuals (64.5%) above the School Leaving Certificate (SLC) education level along with 20.2% holding SLC represent a limited scope of advanced educational opportunities. Only a tiny proportion of people have progressed to educational levels of intermediate (8.1%), undergraduate

(4.0%) or graduate (3.2%). The statistics indicate households with less than five members make up 56.5% of total households and homes with five to ten members account for 36.3%. Relatively few Nepalese families expand beyond ten to fifteen members (6.5%) and beyond those with fifteen or more members (0.8%). The analyzed group consists primarily of people between thirty and fifty who primarily work in retail and have minimal formal education training with most households containing small to medium family members.

Results of Paired Sample t-Test (Business Volume and Turnover)

ITEMS	Mean Difference	Std. Error Mean	t-Statistic	p-Value
Daily sales amount	8,500	2,400.50	3.54	0.001
Daily customers flow	12.10	2.10	5.76	0.000
Daily purchase amount	4,100	950.00	4.32	0.000
Number of people employed	0.35	0.10	3.20	0.002
Total investment in business (Rs)	210,000	22,000	9.55	0.000

Statistically important variations emerged from a paired sample t-test evaluation of essential business factors in the results table. The significant improvement is validated by the t-statistic (3.54) and p-value (0.001) alongside a shift in mean daily sales to Rs8,500. Research findings showed that daily consumer flow experienced an average client increase of 12.1 people and achieved a t-statistic of 5.76 and a very significant p-value of 0.000. A statistical analysis revealed that daily purchases increased by Rs 4,100 because the computed t-statistic reached 4.32 and the p-value reached 0.000 which demonstrates that organizations needed to rise their procurement amounts to satisfy their growing demand. The business added 0.35 workforce members on average (t-statistic 3.20 with p-value 0.002). Total business investments experienced the most dramatic change through average growth of Rs210,000 where the t-statistic rose to 9.55 and a p-value of 0.000 indicating large-scale financial engagement. The obtained data shows increased performance for businesses through enhanced revenue alongside greater customer attendance and purchase quantities alongside higher employment figures and larger investment levels potentially triggered by both growth approaches and fortunate external circumstances benefitting companies.

Saving and Expenditure

Knowledge from the paired sample t-test confirms that considerable differences emerged between monthly savings and spending patterns in every category. A paired sample t-test showed that household savings held at home expanded by Rs7,500 with a t-statistic of 8.82 and a p-value of 0.000 indicating strong evidence of rising household home savings. Statistical analysis showed average bank savings exceeded Rs13,250 through a 6.83 t-statistic and p-value of 0.000, indicating that people allocate more income to salaried banks for formal financial tools or monetary increase. A statistically significant increase of Rs3,100 as food expense became evident by t-statistic 11.47 and p-value 0.000 indicating that households either spent more due to inflation or could afford better quality food items. Education expenditure witnessed a significant rise of Rs 925.40 (t-statistic: 8). These findings point toward two possible scenarios: expanding educational priorities and escalating educational expenses because the p-value equaled 0.000. Entertainment spending increased by Rs 365.70 showing moderate growth in discretionary spending but maintained a t-statistic of 4.66 and p-value of 0.000. Furthermore, health expenditure increased by Rs840.65 (t-statistic: 8. Rising healthcare expenditures alongside increased health mindset were identified from the statistical findings (t-statistic: 8.74; p-value: 0.000). Research outcomes show sizeable growth in household savings in addition to higher spending which points toward behavior alterations in money management and better financial means as well as rising prices and evolving life choices of consumers. Table 3

Pair	Items	Mean Difference	Std. Error Mean	t-Statistic	p-Value
1	Average monthly savings at home	7,500	850.50	8.82	0.000
2	Average monthly savings in bank	13,250	1,940.10	6.83	0.000
3	Monthly expenditure son food	3,100	270.32	11.47	0.000
4	Monthly expenditure in education	925.40	110.45	8.38	0.000
5	Monthly expenditure in entertainment	365.70	78.40	4.66	0.000
6	Monthly expenditure on health	840.65	96.20	8.74	0.000

Ownership of Assets

The results from paired sample t-tests show substantial modifications occurred to asset ownership. Households acquired a mean of 1.25 mobile devices within the study period according to findings with a t-statistic value of 8.33 and a p-value of 0.000 thus establishing a highly significant increase that seems connected to mobile technology becoming less expensive to purchase and more accessible. The ownership of televisions had a statistically significant rise, with an average increase of 0.20 TVs per household (t-statistic: 5. The data shows improved financial status or home entertainment choice as the reason behind this rise (p-value: 0.000). The number of motorbikes shown a substantial increase, averaging 0.30 motorcycles per household (t-statistic: 5. Improved transportation systems and rising income were two factors that together caused this statistical significance (t-statistic: 5.00, p-value: 0.001). The study revealed no significant differences in animal or bicycle ownership which yielded mean changes of 0.50 for animals while bicycles stayed at 0.05 followed by p-values exceeding 0.05. Several assets categories-maintained stability because demand changes for conventional resources were minimal. From the analysis it becomes clear that modern technological products such as mobile phones and televisions and motorcycles have seen substantial growth which reflects better economic circumstances and evolving consumer preferences. Table 4

Results of Paired Sample t-test (Asset Ownership)

Pair	Items	Mean Difference	Std. Error Mean	t-Statistic	p-Value
1	Number of mobiles	1.25	0.15	8.33	0.000
2	Number of TVs	0.20	0.04	5.00	0.000
3	Number of animals	0.50	0.55	0.91	0.370
4	Number of cycles	0.05	0.07	0.71	0.490
5	Number of motorcycles	0.30	0.06	5.00	0.001

Social Empowerment

Women who obtain microfinance receive enhanced autonomy over household and business decisions leading to strengthened family and social bonds and improved mobility educational success and better health. Empirical research supports every dimension presented here.

Independence in Decision-Making

In this context, women were asked to reveal who possesses decision-making power in domestic and business matters, with their autonomy assessed on a scale from zero to two: The decision-making power of spouses is measured on a 0-2 scale where 0 means complete husband control yet 1 shows shared decision power and 2 demonstrates independent female authority in household and business decisions.

Women who had control over household decisions from Table 5's Panel A rated better scores on every assessment criterion. Research findings show microfinance borrowers typically achieve partnership with their spouses in making household decisions post-loan acquisition. Most women's decisions outranked their counterparts in both household and business scenarios according to the ranking results. Women now maintain higher levels of participation with greater autonomy when it comes to key household and business decisions because of microfinance programs. Table 5

Results of the Wilcoxon Signed Ranks Test (Women's Autonomy in Decision-Making)

Decision Criteria	Negative Ranks (N)	Mean Rank (Negative)	Positive Ranks (N)	Mean Rank (Positive)	Ties (N)
Decision for children's education	2	2.50	15	8.70	107
Decision for household expenses	3	5.00	12	7.80	109
Decision for savings	4	5.50	14	9.20	106
Decision for business issues	1	3.00	11	7.40	112
Decision for health issues	0	—	8	7.00	116

Decision Criteria	Z-Value	p-Value
Children's Education	-2.851	0.004
Household Expenses	-1.993	0.046
Savings	-2.212	0.027
Business Issues	-2.776	0.008
Health Issues	-2.125	0.034

Women manage decision-making responsibility for household matters and business activities across all domains with statistical significance at the 5% level (Figure B). The Z-values and p-values demonstrate women's decision-making authority on children's education expenses ($p = 0.004$) and household budget designs ($p = 0.046$) achieved significant improvements as did financial reserves ($p = 0.027$), business activities ($p = 0.008$) and healthcare ($p = 0.034$). Women entrepreneurs demonstrate enhanced autonomy to make decisions after getting microfinance services because these services create sustained effects on their personal-stream and professional independence.

Freedom of Movement

The data in Table 6 Panel A shows that women achieved improved mobility throughout all listed areas and displayed substantial joint decision-making patterns while managing their family affairs alongside their partners. Adult female participation in microfinance programs led to better mobility results. The study shows participants gained better access to places and markets and stakeholders and improved their ability to participate in seminars and programs and social events. The analysis shows that microfinance enables women through empowerment to lead decisions about their mobility and liberty exclusively through assertive choices. Table 6

Results of the Wilcoxon Signed Ranks test (Women's mobility autonomy)Panel B: Test statistics for decision making based on negative ranks

Area	Ranks	N	Mean Rank
Visiting places	Negative	1	6.50
	Positive	25	14.80
	Ties	98	–
Visiting market (household/business purchase)	Negative	2	7.00
	Positive	26	13.20
	Ties	96	–
Meeting stakeholder	Negative	1	5.00
	Positive	24	12.75
	Ties	99	–
Attending seminars/programs related to business	Negative	0	–
	Positive	23	12.10
	Ties	101	–
Attending ceremonies/gatherings	Negative	0	–
	Positive	20	10.20
	Ties	104	–

Panel B: Test statistics for decision making based on negative ranks

Wilcoxon	**Visiting places**	**Visiting market**	**Meeting stakeholder**	**Attending programs**	**Attending ceremonies**
Z-Value	-3.100	-4.000	-4.000	-4.200	-3.700
p-Value	0.002	0.000	0.000	0.000	0.000

Data analysis confirms a statistical 5% significant increase in women entrepreneurs' mobility following their receipt of microfinance services. The mobility of women entrepreneurs has shown marked improvement through their increased visits to places (-3.100 Z-value, p-value 0.002) and market acquisitions (-4.000 Z-value, p-value 0.000), stakeholder interactions (-4.000 Z-value, p-value 0.000), seminar and business program attendance (-4.200 Z-value, p-value 0.000), and ceremonies and gatherings (-3.700 Participation by women in MFIs' center meetings appears to be the main factor in their improved confidence levels and enhanced engagement with social activities and economic operations. The research demonstrates how microfinance programs change women's empowerment status and increase their mobility options and decision-making freedom.

Familial and Social Relationship

The study found concrete evidence of statistical significance when analyzing family and social bonds between women participants. Familial and social connections scored 3.840 on average, representing 130 participants and showed 0.530 standard deviation values and a 0.046 standard error of the mean. The positive scale of family bonds and interpersonal connections within these groups proves very elevated according to this assessment. A t-statistic of 18.450 with a resulting p-value of 0.000 when the test value was set to 3 proved significant at a 5% level. A 0.840 difference between the actual observed mean (3.840) and the theoretical results demonstrates that familial and social relationships far surpass average levels. An analysis based on the 95% confidence interval shows a range of 0.752 to 0.928, thus validating the obtained result. Widespread improvements in women's household responsibilities along with social engagement seem to drive their better-reported interactions according to statistical data.

Table 7

Results of One Sample Test (Women's Familial and Social Relationships)

One Sample Statistics	N	Mean	Std. Deviation	Std. Error Mean
Family & Social Relationship	130	3.840	0.530	0.046

Panel B: Test for the level of significance with test value 3

One Sample Test	t	p-Value	Mean Difference	95% CI Lower	95% CI Upper
Family & Social Relationship	18.450	0.000	0.840	0.752	0.928

Academic Achievement and Health Status

The results from the one-sample test show that women's education and health status has improved significantly. The investigation first analyzed education and health status using a mean score of 3.914 from a 130-member sample group whose standard deviation remained at 0.412 while their standard error of the mean equalled 0.036. Research indicates that members demonstrate well above average expertise and good health status.

Analysis in Panel B tested the significance using a projected value of 3. The experimental result shows a statistically remarkable divergence between the observed mean and the hypothesized mean since the t-statistic totaled 21.405 and the p-value composed 0.000. The results demonstrate that women enjoy superior educational attainment and health status levels, which surpass the predicted average of 3 by 0.914. The statistical significance of the findings is demonstrated by a 95% confidence interval of mean difference ranging from 0.842 to 0.986, which does not include zero. Women entrepreneurs show enhanced educational and health measurements because they participate in microfinance or community-based projects that give them better access to education and healthcare. Statistics indicate that these performance metrics positively affect female well-being during research creation.

Results of One-Sample Test (Women's Education and Health Status)

One-Sample Statistics	N	Mean	Std. Deviation	Std. Error Mean
Education and Health Status	130	3.914	0.412	0.036

Panel B: Test for the level of significance with test value 3

Test Value = 3	t	p-Value	Mean Difference	95% CI Lower	95% CI Upper
Education and Health Status	21.405	0.000	0.914	0.842	0.986

Research investigating the impacts of loans from microfinance organizations found discernible differences in business growth between firms owned by women after loan procurement. Research by Naeem et al. (2015) demonstrates that microfinance causes major improvements to beneficiaries' microenterprise sales revenue and net income when contrasted against non-beneficiaries. Women who received microfinance services exhibited enhanced saving behavior together with better spending activities. Analytics provided by Al-Mamun et al. (2014) show that financial savings enable businesses to extend their assets and develop their emergency response capabilities. Barnes, Morris, and Gaile (2001b) discovered through their research that family possessions grew substantially after people in the Rupandehi district received loans from microfinance institutions. Family and business choices were predominantly made jointly by married couples according to study data. Kabeer's research (2009) produced analogous findings with substantial domestic and corporate decisions jointly. The research showed how microfinance loan recipients established better family and social relationships which matches the findings of Rehman, Moazzam, and Ansari (2015). Research findings confirm Pitt, Khandker, and Cartwright's observation (2003) which shows microcredit programs enhance women's movement independence. Several key human capital aspects demonstrated improvement according to Pronyk, Hargreaves and Morduch (2007) following women's participation in microfinance programs.

The evidence from this study strongly affirms the capacity of microfinance programs to catalyze profound economic transformation among rural women entrepreneurs in Karnali Pradesh, Nepal, through measurable growth in business performance, financial behavior, and asset ownership. Statistical analyses from paired sample t-tests reveal significant gains in daily sales volumes, customer footfall, procurement levels, employment creation, and overall business investment following participation in microfinance schemes. These results echo earlier research by Dzisi et al. (2008) and Naeem et al. (2015), which found that microfinance not only enables women to initiate and expand entrepreneurial ventures but also contributes to broader local economic development. Beyond direct business outcomes, the study documents a notable shift in financial practices, evidenced by substantial increases in both home and bank savings alongside heightened expenditure on food, education, healthcare, and other essential household needs. This mirrors the findings of Al-Mamun et al. (2014), who emphasized that improved savings capacity enhances household resilience, facilitates asset building, and enables investments in human capital. The acquisition of modern consumer assets such as mobile phones, televisions, and motorcycles indicates a marked improvement in living standards, mobility, and access to information. While traditional assets like livestock and bicycles remained largely unchanged, the shift toward technology and transportation assets signals a reorientation of rural consumption priorities, consistent with the asset growth patterns observed by Barnes et al. (2001). Such patterns suggest that microfinance's influence extends beyond subsistence to foster integration into broader economic and technological systems.

Equally compelling are the study's findings on social empowerment, which highlight the multifaceted impact of microfinance on women's agency, autonomy, and social capital. Wilcoxon signed-rank test results indicate that microfinance participation significantly enhances women's decision-making authority in areas such as household expenditures, savings, business operations, healthcare, and children's education domains traditionally dominated by male household members. These results align with Kabeer's (2009) theoretical framework, which posits that access to economic resources strengthens women's bargaining power and ability to influence household priorities. Furthermore, women reported substantial improvements in mobility, including the ability to visit markets, attend training programs, engage with stakeholders, and participate in social gatherings, marking a departure from restrictive gender norms and increasing public engagement (Pitt et al., 2003). Enhanced familial and social relationships, along with significant improvements in education and health status, reflect the ripple effects of microfinance, where economic empowerment feeds into social wellbeing and vice versa (Rehman et al., 2015; Pronyk et al., 2007). This virtuous cycle reinforces women's social standing, strengthens community ties, and fosters long-term development outcomes. Nonetheless, the study acknowledges the caution raised by Afrane (2002) and Rahman (1999) that increased financial responsibility can sometimes lead to heavier workloads, intra-household tensions, or even misuse of funds by male family members. Addressing these risks requires that microfinance interventions be coupled with supportive social policies, gender sensitization programs, and mechanisms for equitable resource control. Overall, the findings position microfinance not merely as a financial tool but as a strategic development intervention that, if scaled and sustained, can play a critical role in achieving inclusive economic growth and gender equality in rural Nepal.

Conclusion

The document demonstrates that microfinance delivers powerful advantages for female empowerment across social and economic spheres. Results prove that business achievement metrics increase because women gain better access to funding from traditional banks as well as saving plans provided by and additional support services from microfinance institutions. The Rupandehi district women who gained microfinance loans experienced robust improvements in their social along with economic status according to the study research results. Women entrepreneurs who access microfinance experience major improvements in their business operations while simultaneously gaining ownership of assets and improved financial practices and gaining more control over their decisions and building better family relationships and achieving social progress alongside increased mobility and better education and health outcomes. The country's inclusive growth depends heavily on developing women entrepreneur microfinance services so the government and international development organizations should make this a vital priority. Research on the influence of financial institutions on women entrepreneurs in Nepal's socio-economic development stands out from existing literature about this subject. Future scholars conducting research on this topic should apply Randomized Controlled Trials using bigger sample sizes to generate nationwide results while decreasing selection bias in upcoming investigations.

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