

Can Microfinance Institutions Achieve the Double Bottom Line? Evidence from Global Panel Data

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ABSTRACT

The rapid commercialisation of microfinance has highlighted the debate on whether microfinance institutions (MFIs) can be financially sustainable without compromising their social mission. This study explores the Double Bottom Line (DBL) by examining the relationship between financial sustainability and social outreach using a global panel of 2,876 institution-year observations from 1,028 MFIs from the MIX Market Financial and Social Performance databases for the period 2007–2018. Financial sustainability is measured by Operational Self-Sufficiency (OSS) and Return on Assets (ROA). Social outreach is captured by outreach breadth, the share of female borrowers, and average loan balance as a percentage of GNI per capita. The study employs fixed-effects panel regression models to account for unobserved institutional heterogeneity and time-specific effects. The results show that outreach levels and the share of female borrowers do not have a significant impact on financial sustainability. However, the depth of outreach is strongly associated with financial performance, indicating that serving poorer clients with relatively small loans is consistent with sustainability. Portfolio quality and operating efficiency drive financial sustainability. MFIs that are financially sustainable are better positioned to expand their outreach over time. The results support the institutionalist theory over the mission drift hypothesis, suggesting that financial sustainability and social outreach are complementary rather than conflicting goals. This study contributes to the DBL literature by providing international evidence and offers policy implications to foster a financially sustainable and socially inclusive microfinance system.

Keywords: Microfinance Institutions; Double Bottom Line; Financial Sustainability; Social Outreach; Financial Inclusion; Panel Data.

1. INTRODUCTION

Microfinance has emerged as one of the most powerful tools of financial inclusion in developing economies by providing financial services to households traditionally excluded from the formal banking system. Since the pioneering success of the Grameen Bank, microfinance institutions (MFIs) have proliferated in Asia, Africa and Latin America, providing credit, savings, insurance and other financial services to millions of low-income clients. MFIs are unique financial institutions as they are expected to promote poverty alleviation, women's empowerment, enterprise development and inclusive economic growth apart from their role in financial intermediation [1]–[4].

But the phenomenal growth of the microfinance industry has altered the institutional landscape. In its infancy, microfinance relied heavily on donor funding, concessional finance and government support. This enabled many institutions to focus on social reach more than financial performance. External funding has shrunk, competition has grown, and MFIs have increasingly looked to commercial operating models to ensure long-term sustainability. Thus, financial sustainability has become a precondition for the institution's survival, not just an organisational goal. This shift has generated an important policy debate on whether commercialisation improves the capacity of institutions or detracts from the original mission of microfinance institutions (MFIs) to serve poor and financially excluded households [5]–[8].

The debate is often framed in terms of the Double Bottom Line (DBL) paradigm, which holds that MFIs should pursue both financial viability and significant social impact. Unlike conventional financial institutions, MFIs are judged on their ability to create social returns as well as their profitability. Financial sustainability enables institutions to operate without permanent dependence on external subsidies. Social outreach refers to institutions' ability to provide financial services to low-income populations. A key question in contemporary microfinance research is whether these two goals are complementary or conflicting [3], [9]. Different theoretical perspectives dominate this debate. Institutionalists argue that financially sustainable MFIs will be better placed to mobilise resources, invest in technology, improve operational efficiency and scale up outreach over time. Conversely, the welfarist view is that more commercialisation risks mission drift, whereby the institution ends up gradually shifting its focus towards wealthier and less risky borrowers at the expense of poorer clients. However, empirical evidence for both views has been found, yet the current evidence remains inconclusive, with studies showing complementary, neutral, and trade-off relationships between financial sustainability and social outreach [2], [5], [7], [10]. Reasons for these mixed findings. First, most of the existing evidence comes from single-country or regional studies, which limits the generalisability of the findings to different institutional settings. Secondly, the literature on financial sustainability and social outreach is often conducted separately, rather than as a single

integrated empirical framework. Third, divergent findings on the existence of the double bottom line have also been influenced by differences in outreach metrics, financial performance indicators, sample composition and econometric techniques [6], [8], [11]–[13]. There is thus no strong international evidence based on harmonised data.

The present study fills these gaps by using data from a global panel of 2,876 institution-year observations of 1,028 microfinance institutions, drawn from the MIX Market Financial and Social Performance databases, over the period 2007–2018. Financial sustainability is assessed using operational self-sufficiency (OSS) and return on assets (ROA), whereas social outreach is assessed by outreach breadth, the proportion of female borrowers, and the average loan balance relative to gross national income (GNI) per capita. We employ fixed-effects panel regression models to control unobserved institutional heterogeneity and common time-specific effects. We contribute to literature in four ways. First, it adds international evidence on the double bottom line with one of the largest harmonised panel datasets available for microfinance institutions. Second, it jointly considers financial sustainability and multiple dimensions of social outreach within a common empirical framework, thereby offering a more comprehensive assessment of the double bottom line than studies that focus on a single performance dimension. Third, the results are more robust because they control unobserved institutional heterogeneity using fixed-effects panel estimation. The paper concludes with some practical implications for policymakers, development agencies, investors and MFI managers interested in improving financial sustainability while maintaining the social mission of financial inclusion.

The rest of the paper is organised as follows. Section 2 reviews the relevant literature and identifies the research gap followed by theoretical framework and hypotheses in section 3. Section 4 is dedicated to data, variables and empirical methodology. Section 5 reports and discusses the empirical results, and finally Section 6 concludes with the main findings, policy implications, limitations, and future research directions.

2. LITERATURE REVIEW

2.1 Financial Sustainability and Social Outreach

Performance of microfinance has two basic dimensions- financial sustainability and social outreach. Financial sustainability is a measure of the ability of microfinance institutions (MFIs) to generate revenue sufficient to meet operational and financial costs and to reduce dependence on donor support and external subsidies [3], [5]. It is recognised as a precondition of institutional continuity and long-term financial inclusion. Operational self-sufficiency (OSS), financial self-sufficiency (FSS), return on assets (ROA), and return on equity (ROE) are common indicators for assessing institutional sustainability.

The social outreach of MFIs differs from that of conventional financial institutions because they focus on the financially excluded. Literature tends to conceptualise outreach along two complementary dimensions: breadth, measured by the number of clients served, and depth, measured by the extent to which financial services reach poorer and more vulnerable households. Common indicators include active borrowers, the percentage of female borrowers, and the average loan balance relative to Gross National Income (GNI) per capita, with smaller loan sizes typically indicating deeper outreach [11], [13], [15]. The Double Bottom Line (DBL) brings together financial sustainability and social outreach. Under this framework, MFIs are expected to achieve financial viability and make a meaningful social impact.

2.2 Commercialisation, Mission Creep and the Double Bottom Line

The rapid expansion of microfinance has sparked a wide debate over whether financial sustainability reinforces or undermines the social mission of MFIs. From an institutionalist point of view, financially sustainable institutions are better able to mobilise capital, improve operational efficiency, increase outreach, and secure long-term institutional viability [3], [5].

This perspective posits that financial sustainability and social outreach are mutually reinforcing goals, as stronger institutions are better able to serve the financially excluded. In contrast, the welfarist view indicates that greater reliance on commercial funding has the potential to induce mission drift as MFIs gradually move towards wealthier and less risky borrowers via larger loan sizes and less focus on the poor [2], [12]. This view raises the issue of whether the profit motive will undermine the developmental purpose of microfinance, implying a trade-off between financial results and social coverage.

These competing theoretical perspectives have led to substantial empirical research on the extent to which financially sustainable MFIs can maintain their social mission. But the evidence is still inconclusive. Some studies report that financially sustainable MFIs maintain strong social outreach, but others find significant trade-offs between profitability and poverty targeting [6]-[10]. The mixed results suggest that the relationship between financial sustainability and outreach is contingent on institutional characteristics, governance structures, regulatory environments and market conditions, rather than commercialisation alone.

2.3 Research Gap and Empirical Evidence

Over the last two decades, empirical research on the Double Bottom Line has increased dramatically. Previous research has explored the trade-off versus complementarity between financial sustainability and social outreach through cross-sectional analysis, panel-data models, data envelopment analysis, stochastic frontier analysis and other efficiency measurement

techniques [9], [10], [17]. However, despite this growing body of literature, no clear consensus has been reached on the Double Bottom Line.

There are three important gaps in the research. First, a large part of the existing evidence comes from single-country or regional studies, which limits the external validity of the findings in different institutional and regulatory settings. Second, extant studies are either concerned with financial sustainability or with social outreach but rarely address both dimensions simultaneously within an integrated empirical framework. Third, inconsistent conclusions about mission drift and the compatibility of financial sustainability and social outreach have been drawn due to differences in outreach measures, financial performance indicators, sample composition and econometric techniques. Moreover, while most studies examine the impact of social outreach on financial performance, relatively little attention has been given to the reverse relationship, i.e. whether financially sustainable MFIs are better positioned to increase outreach over time.

To overcome these limitations, this study uses a global panel of microfinance institutions based on the MIX Market Financial and Social Performance databases. Applying internationally comparable measures of financial sustainability and multiple dimensions of social outreach within a fixed-effects panel framework, the paper provides new international evidence on MFIs' ability to simultaneously achieve financial sustainability and meaningful social outreach. Hence, the study contributes to the ongoing Double Bottom Line debate by assessing not only the effect of social outreach on financial sustainability but also the reverse relationship between financial sustainability and the expansion of outreach.

3. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

3.1. Theoretical Framework

This research is based on the theoretical Double Bottom Line (DBL) framework, which recognises that microfinance institutions (MFIs) pursue two interrelated goals: financial sustainability and social outreach [3], [5]. Unlike conventional financial institutions, which are oriented toward profit maximisation [2], [4], MFIs are assumed to remain financially sustainable while providing financial services to the financially excluded and low-income population. Financial sustainability ensures institutional continuity, and social outreach reflects the achievement of development objectives.

Two competing theoretical perspectives explain the relationship between these objectives. The institutionalist perspective posits that financially sustainable MFIs are better equipped to mobilise resources, improve operational efficiency, and expand outreach [3], [5], [9]. The welfarist view argues that increased commercialisation can lead to mission drift, in which MFIs focus on financial performance by serving relatively richer, less risky borrowers at the expense

of poorer clients [2], [6], [12]. Whether financial sustainability and social outreach are complementary or conflicting objectives is an empirical question [7], [10].

3.2 Formulation of the hypothesis

According to the institutionalist perspective, financially sustainable MFIs are better able to mobilise resources, expand lending operations, and reach the financially excluded [3], [5], [9]. Thus, the first hypothesis is proposed:

Hypothesis 1: There is a positive relationship between the social outreach of microfinance institutions and their financial sustainability.

In theory, the relationship between outreach depth and financial sustainability is unclear. Weaker institutions may have a lower capacity to serve poorer clients, but commercial pressures can push them to increase loan sizes and serve relatively wealthier borrowers, consistent with the mission drift hypothesis [2], [6], [12]. The second hypothesis is therefore formulated as follows:

Hypothesis 2: There is a significant relationship between financial sustainability and depth of social outreach of microfinance institutions.

The relationship between financial sustainability and social outreach can also run in reverse. Broader and deeper outreach could enhance institutional sustainability through portfolio diversification, economies of scale and improved operational efficiency. However, serving poorer clients who are geographically dispersed can lead to higher transaction costs and lower financial performance [7], [10], [17]. Hence, the third hypothesis is proposed as:

Hypothesis 3: Social outreach is significantly related to the financial sustainability of microfinance institutions.

4. DATA AND METHODOLOGY

4.1 Source of Data and Sample

This study employs an unbalanced panel dataset of microfinance institutions (MFIs) sourced from the MIX Market Financial and Social Performance databases. Our sample covers the period 2007-2018 and includes 2,876 institution-year observations from 1,028 MFIs from different geographical regions. The MIX Market database is considered one of the most comprehensive international sources of standardised financial and social performance information for MFIs and has been used extensively in microfinance research [9], [10], [17].

To maintain data consistency and reliability, we excluded institutions with considerable missing observations on key variables. Financial information was obtained from the audited reports of

institutions as reported in the MIX Market database, and social performance indicators were obtained from the corresponding social performance dataset.

4.2 Measuring the Variable

The study assesses the Double Bottom Line (DBL) in terms of financial sustainability and social outreach.

Financial sustainability is measured by Operational Self-Sufficiency (OSS) and Return on Assets (ROA). OSS measures the extent to which operating revenues cover financial and operational expenses, while ROA measures the efficiency with which institutional assets generate earnings [5], [9].

Three complementary indicators measure social outreach. The number of active borrowers (NAB) reflects the level of financial inclusion (outreach breadth). The outreach depth is measured by the percentage of female borrowers (PFB) and the average loan balance relative to Gross National Income per capita (ALB/GNI), where a lower loan balance indicates deeper outreach to poorer clients [11], [13].

We include institutional characteristics as control variables that may affect both financial sustainability and outreach, as in previous studies. They are: institution size (log of total assets), age, portfolio quality measured by portfolio at risk over 30 days (PAR30), operational efficiency, capital structure and legal status [6], [8], [10].

Table 1 gives the definitions and measures of all variables used in the empirical analysis.

Table 1. Definition of Variables

Variable	Symbol	Measurement	Expected Sign
Operational Self-Sufficiency	OSS	Operating Revenue / (Financial + Operating Expenses)	-
Return on Assets	ROA	Net Income / Total Assets	-
Active Borrowers	NAB	Number of active borrowers (log)	+
Female Borrowers	PFB	Percentage of women borrowers	+
Average Loan Balance/GNI	ALB/GNI	Average loan size ÷ GNI per capita	-
Control Variables	...	As defined	±

4.3 Empirical Model

This study uses fixed-effects panel regression models to examine the relationship between social outreach and financial sustainability. The fixed-effects estimator accounts for time-invariant unobserved institutional characteristics that may affect both financial and social performance, thereby reducing omitted variable bias [18]. Year dummy variables are included to control for common shocks to all institutions such as macroeconomic and regulatory shocks.

We estimate three empirical models.

Model 1 examines the influence of financial sustainability on outreach breadth:

$$NAB_{it} = \alpha + \beta_1 FS_{it} + \gamma X_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

where FS represents financial sustainability measured alternatively by OSS and ROA, and X denotes the vector of control variables.

Model 2 examines the effect of financial sustainability on outreach depth:

$$Depth_{it} = \alpha + \beta_1 FS_{it} + \gamma X_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

where outreach depth is alternatively measured by the percentage of female borrowers and average loan balance relative to GNI per capita.

Model 3 investigates the reverse relationship by examining whether social outreach influences financial sustainability:

$$FS_{it} = \alpha + \beta_1 Outreach_{it} + \gamma X_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

where outreach is represented by both breadth and depth indicators.

Standard errors are estimated using heteroskedasticity-robust estimators to ensure valid statistical inference.

4.4 Diagnostic Tests

Before estimating the regression models, descriptive statistics and pairwise correlation analyses are conducted to examine the distributions of the variables and to assess potential multicollinearity. Multicollinearity is not a concern, as confirmed by the Variance Inflation Factor (VIF) statistics. The Hausman specification test favours the fixed-effects estimator over the random-effects model. Robust standard errors are used to account for possible heteroskedasticity.

5. RESULTS AND DISCUSSION

5.1 Descriptive Statistics

The descriptive statistics of the variables used in the analysis are given in Table 2.

Table 2. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Operational Self-Sufficiency (OSS)	2,876	1.1567	0.3046	0.2658	2.3979
Return on Assets (ROA)	2,876	0.0159	0.0790	-0.4134	0.1820
Outreach Breadth (ln Borrowers)	2,876	9.8446	1.9477	2.3026	15.7756
Outreach Depth (% Female Borrowers)	2,876	0.6610	0.2660	0.0000	1.3826
Outreach Depth (Average Loan Balance/GNI p.c.)	2,876	0.4961	0.6914	0.0231	4.0847
Portfolio Scale (ln GLP)	2,876	16.2922	1.8966	4.2341	22.4765
Operating Efficiency (Operating Expenses/Assets)	2,876	0.1788	0.1314	0.0226	0.7728
Credit Risk (PAR30)	2,876	0.0556	0.0881	0.0000	0.5999
Staff Productivity (Borrowers per Loan Officer)	2,876	306.5563	206.4419	43.0000	1357.0000
Social Target: Women (Binary)	2,876	0.8512	0.3560	0.0000	1.0000

Source: Authors' calculations based on the merged MIX Market Financial and Social Performance databases.

The results show that the sampled microfinance institutions (MFIs) vary considerably in terms of financial performance, outreach characteristics and institutional features. The average value of OSS is greater than 1, indicating that most of the institutions can cover their operating and financial expenses from their own sources of income. However, there is significant variation in OSS and Return on Assets (ROA), indicating substantial differences in the financial performance of the institutions.

Outreach indicators are also highly diverse. The average proportion of female borrowers is relatively high, but average loan balances vary considerably relative to Gross National Income (GNI) per capita, indicating variation in the depth of outreach across MFIs. Similar heterogeneity is seen across institutional size, portfolio quality, operating efficiency, and staff productivity. Such differences justify the use of panel-data techniques that account for heterogeneity across institutions. Overall, the descriptive statistics suggest that the global microfinance sector provides an appropriate setting to examine whether MFIs can achieve financial sustainability and meaningful social outreach concurrently.

5.2 Correlation Analysis

Table 3 displays the pairwise correlation coefficients and Variance Inflation Factor (VIF) statistics.

Table 3. Correlation Matrix and Variance Inflation Factors (VIF)

Variable	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	VIF
[1]	1.000	0.783	0.056	- 0.040	0.052	0.122	- 0.375	- 0.216	0.097	0.008	—
[2]	0.783	1.000	0.123	- 0.016	0.008	0.180	- 0.454	- 0.223	0.093	0.019	—
[3]	0.056	0.123	1.000	0.328	- 0.129	0.797	- 0.140	- 0.106	0.321	0.070	6.044
[4]	- 0.040	- 0.016	0.328	1.000	- 0.412	- 0.095	0.163	- 0.121	0.255	0.211	1.874
[5]	0.052	0.008	- 0.129	- 0.412	1.000	0.262	- 0.262	0.035	- 0.233	- 0.107	1.345
[6]	0.122	0.180	0.797	- 0.095	0.262	1.000	- 0.346	- 0.063	0.142	- 0.040	5.922
[7]	- 0.375	- 0.454	- 0.140	0.163	- 0.262	- 0.346	1.000	- 0.011	- 0.256	- 0.008	1.173
[8]	- 0.216	- 0.223	- 0.106	- 0.121	0.035	- 0.063	- 0.011	1.000	0.030	- 0.090	1.006
[9]	0.097	0.093	0.321	0.255	- 0.233	0.142	- 0.256	0.030	1.000	0.096	1.011
[10]	0.008	0.019	0.070	0.211	- 0.107	- 0.040	- 0.008	- 0.090	0.096	1.000	1.054

Note: [1]: Operational Self-Sufficiency (OSS_w), [2]: Return on Assets (ROA_w), [3]: Outreach Breadth (ln(Borrowers)), [4]: Outreach Depth (% Female Borrowers), [5]: Outreach Depth (Avg Loan Balance / GNI p.c.), [6]: Portfolio Scale (ln(GLP)), [7]: Operating Efficiency (OpEx / Assets), [8]: Credit Risk (PAR30), [9]: Staff Productivity (Borrowers / Loan Officer), [10]: Social Target: Women (Binary)

Source: Author's calculation.

The explanatory variables are for the most part moderately correlated, and there is no evidence of serious multicollinearity. The highest VIFs are well below the usual threshold of 10, suggesting that the explanatory variables capture different dimensions of institutional performance and can be included simultaneously in the regression models without unduly biasing the estimates.

There is also some preliminary evidence from the correlation matrix consistent with theoretical expectations. Institutional size, portfolio risk, and operating expenses are negatively related to financial sustainability, indicating that larger and more efficiently managed institutions are more likely to be financially successful. Similarly, the negative correlation between average loan

balance and the share of female borrowers implies that institutions with larger shares of female borrowers tend to provide relatively smaller loans, reflecting deeper social outreach. These initial associations are then tested more rigorously in the regression analysis.

5.3 Regression Results and Discussion

Table 4 presents the results of the fixed-effects regressions. Model 1 estimates the determinants of Operational Self-Sufficiency (OSS). Model 2 substitutes OSS with Return on Assets (ROA) to test robustness. Model 3 tests whether financial sustainability subsequently fosters the expansion of outreach. Institution and year fixed effects are included in all specifications to control for unobserved institutional characteristics and common macroeconomic shocks.

Table 4. Fixed Effects Regression Results

Independent Variables	Model 1: Baseline (OSS_w)	Model 2: Robustness (ROA_w)	Model 3: Reverse Dynamics (ln(Borrowers))
ln(Borrowers)	0.0353 (0.0266)	0.0085 (0.0075)	—
% Female Borrowers	0.0298 (0.0581)	0.0119 (0.0151)	0.2600 (0.1588)
avg_loan_w	-0.0465* (0.0245)	-0.0154*** (0.0061)	-0.2436*** (0.0649)
OSS_w	—	—	0.3623*** (0.0948)
ln(GLP)	0.0477* (0.0252)	0.0095 (0.0072)	—
par30_w	-0.8875*** (0.1611)	-0.2292*** (0.0479)	0.0971 (0.2409)
opex_w	-0.9569*** (0.1323)	-0.4296*** (0.0603)	-0.9628** (0.4330)
b_lo_w	-0.0000 (0.0001)	-0.0000 (0.0000)	0.0011*** (0.0002)
Constant	0.6093 (0.3855)	0.0210 (0.0890)	9.9142*** (0.2015)
MFI & Year FE	Included	Included	Included
Observations	2,876	2,876	2,876
Within R-squared	0.8139	0.8180	0.9798

Note: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Source: Author's calculation

Empirical evidence indicates that the breadth of outreach, proxied by the number of active borrowers, has no statistically significant independent effect on either OSS or ROA after controlling for institutional characteristics. Similarly, the share of female borrowers is not statistically significant across the financial performance models. These results suggest that increasing outreach or increasing lending to women does not necessarily improve or reduce financial sustainability. The financial impact of outreach depends on how efficient the institutions' operations are.

The pattern of outreach depth, measured by the average loan balance as a share of GNI per capita, differs. The estimated coefficient is negative and statistically significant in both financial performance models, indicating that institutions with relatively smaller loan sizes sustain stronger financial performance. This result contradicts the standard argument of mission drift whereby financial sustainability should lead to larger loans and wealthier borrowers. Instead, the evidence suggests that deeper outreach and financial sustainability are not mutually exclusive, offering more support for the institutionalist perspective than the traditional mission drift hypothesis.

Among the control variables, portfolio quality and operating efficiency are the most important determinants of financial sustainability. Higher portfolio risk and operating expenses always negatively affect OSS and ROA, whereas larger institutional scale is positive for operational sustainability. These results suggest that it is not the expansion of outreach per se that is the key for institutional performance, but prudent credit management, efficient cost control and organisational efficiency.

The robustness check with ROA yields results similar to those for OSS, increasing confidence in the stability of the empirical results. The estimated coefficients are robust to alternative measures of financial performance, suggesting that the results are not sensitive to the choice of financial sustainability indicator.

Model 3 examines the reverse relationship, in which outreach breadth is the dependent variable. The positive and statistically significant coefficient on OSS suggests that institutions with financial sustainability generally serve more borrowers. Additionally, we observe that institutions with smaller average loan sizes and higher staff productivity are associated with serving more borrowers, while those with higher operating expenses are associated with less outreach expansion. The results indicate that financial sustainability is not only a consequence of successful outreach but also an important driver of future financial inclusion.

The regression results provide some support for the overall Double Bottom Line (DBL). Gender outreach and the breadth of outreach are not, in themselves, drivers of financial sustainability. But it is consistent with sustainable financial performance to reach out deeper with smaller relative loan sizes. More importantly, the positive association of financial sustainability with future outreach expansion suggests a two-way relationship between financial and social performance. Thus, the evidence shows that commercialisation does not necessarily harm the social mission of the MFIs, provided that the institutions maintain good portfolio quality, operational efficiency and prudent governance.

6. CONCLUSION

The increasing commercialisation of microfinance has sparked a heated debate about the ability of microfinance institutions (MFIs) to be both financially sustainable and socially inclusive. In this regard, this paper tests the Double Bottom Line (DBL) hypothesis with a global panel of 2876 institution-year observations from the MIX Market Financial and Social Performance databases for 1028 Microfinance Institutions (MFIs) for the period 2007-2018.

In this study, we use fixed-effects panel regression models to investigate the relationship between financial sustainability and various dimensions of social outreach, while controlling for institutional heterogeneity and time-specific effects.

The empirical findings suggest that the linkage between financial sustainability and social outreach is more complex than the simplistic commercialisation-versus-mission-drift debate. The breadth of outreach, as measured by the number of active borrowers, and gender outreach, as measured by the share of borrowers who are women, are not statistically significant independent determinants of financial sustainability once institutional characteristics are controlled for.

However, the level of outreach (defined as the ratio of average loan size to GNI per capita) is strongly correlated with financial performance, suggesting that institutions can continue to operate while serving relatively poor clients with relatively small loans. The quality of the portfolio and operational efficiency are key determinants of financial sustainability, underscoring the importance of sound credit management and effective resource use for the long-term viability of institutions. The reverse specification suggests that financially sustainable institutions expand their outreach even further. Financial sustainability is thus not only an institutional outcome but also an enabling outcome for deepening financial inclusion.

Our work contributes to literature in three main ways. First, the paper contributes to the largely country-specific evidence on the Double Bottom Line by using a large international panel of MFIs. Secondly, it brings together empirical financial sustainability and social outreach in one framework for a more comprehensive analysis of how they interact. Third, the analysis validates a two-way relationship between financial sustainability and outreach, providing further evidence that financially sustainable institutions are better able to increase their social outreach over time. Overall, these results suggest the institutionalist perspective more strongly than the traditional mission drift hypothesis. Social outreach and financial sustainability should therefore be seen as complementary objectives.

The results also have important policy implications. We recommend that policy makers and regulators develop integrated performance evaluation frameworks that measure the financial sustainability and social outreach of microfinance institutions, rather than focus on a single

objective. Development agencies and impact investors are seeking to build financial resilience and social impact. They need to enhance capacity in the institutions, manage the risk of their portfolios and improve operational efficiency. The results indicate that MFI managers can enhance financial sustainability and continue serving the financially excluded by focusing on governance, operating costs, and portfolio quality.

There are some limitations to the present study. The analysis relies on self-reported data from the MIX Market database and does not directly consider the macroeconomic conditions, the regulatory environment or the institutional quality of the country. The fixed effects estimator controls time-invariant unobserved heterogeneity. But the findings should be viewed as strong associations, not causal effects. Future research can overcome these limitations by combining macroeconomics and governance indicators, exploring regional heterogeneity, employing different strategies for causal identification, and analysing the evolution of microfinance institutions in the post-pandemic period.

Overall, the evidence presented in this paper suggests that the DBL is not an aspirational idea, but an institutional goal, and therefore there is less scope of trade-off between financial sustainability and social outreach. Microfinance institutions can be financially viable while also fulfilling their developmental role in promoting financial inclusion among the poor if they have the right institutional environment, good governance, efficient operations, and sound portfolio management.

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