POPULAR MEDIA AND PROFITABLE MICROFINANCE IN INDIA

Elizabeth Tharakan*

Abstract: Microfinance is a mechanism of providing financial assistance to those who cannot access traditional banking because they are too poor. The assistance is in the form of small loans of an average size around $200. Available data indicates that there are close to 3,500 microfinance institutions (MFIs) reaching out to 130 million clients. The worldwide majority of MFIs target women as their main clients. Most of them are able to maintain a high loan repayment rate of 95-100 per cent, creating a buzz in popular media like the Wall Street Journal with companies like Kiva Loans. This paper explores the extent to which favorable media coverage of microfinance affects the profits of MFIs in the context of India, one of the largest microfinance markets globally. With any sudden turn of events – any untoward incident - that makes media coverage of microfinance unfavorable, the flow of international investments to MFIs would decline consequently reducing their financial profitability. We examined the effect of one such "untoward incident," the Andhra Pradesh (AP) microfinance crisis of 2010, which turned some coverage for microfinance hostile. We chose this crisis because it occurred after the honeymoon period when the Grameen Bank and Muhammad Yunus won the 2006 Nobel Peace Prize, when a flurry of bad press about microfinance started appearing in international media. Thus, this crisis marks a natural break in favorability of media coverage. Feminist policies encouraged by development economists throughout academic institutions and universities recommend making loans to women because women are likely to use their money responsibly by investing in their businesses and feeding their families rather than wasting their money on alcohol and tobacco. This unwavering faith in women is essentially feminism. We can define feminist policies as those rules, incentives, and regulations that encourage women to be financially literate and financially independent of their families and spouses, which can often lead to a better economy. These feminist policies represent a change for Indian society, which is composed generally of patriarchal economic systems where men are heads of their households and breadwinners. In this paper, we employ a natural experiment design based on a first difference analysis to analyze change in profitability of microfinance institutions in India due to the crisis in AP that resulted in media coverage of microfinance turning unfavorable. Since these effects could vary depending on the ideology of the media outlets, we chose to include multiple newspapers of different political ideologies published from within India and outside in order to examine the relationship between media coverage of microfinance and profitability of the institution. Ultimately, we found that media coverage of microfinance did not impact profitability of microfinance institutions, which surprised us because we thought that feminist policies would drive global recognition and investment. This surprise stems from the fact that microfinance investors are generally banks, not the global public.

Keywords: Microfinance; Economics; Development; Global South; Bank

* Southern Illinois University Carbondale, United States.

Table of Contents

INTRODUCTION

Microfinance is a mechanism of providing financial assistance to those who cannot access traditional banking because they are too poor. The assistance is in the form of small loans of an average size around $200.[1] Available data indicates that there are close to 3,500 microfinance institutions (MFIs) reaching out to 130 million clients. The worldwide majority of MFIs target women as their main clients. Most of them are able to maintain a high loan repayment rate of 95-100 per cent, creating a buzz in popular media like the Wall Street Journal.[2] "Practitioners believe that women tend to be more risk averse in their choice of investment projects, more fearful of social sanctions, and less mobile (and therefore easier to monitor) than men—making it easier for MFIs to ensure a higher rate of repayment."[3]

This paper explores the extent to which favorable media coverage of microfinance affects the profits of MFIs in the context of India, one of the largest microfinance markets globally. Specifically, we hypothesize that media reports and articles about how microfinance works for the poor women in India significantly impacts the global investment policies (relating to equity, loans and grants) by inspiring sympathetic audiences of reputed media outlets to invest in MFIs. This in turn enhances the profitability of microfinance business. Several enquiries have revealed that microfinance has indeed emerged as a favorite sector for foreign investors.[4] If this hypothesis is valid, then any sudden turn of events – any untoward incident - that makes media coverage of microfinance unfavorable, flow of international investments to MFIs would decline consequently reducing their financial profitability. We examined the effect of one such "untoward incident," the Andhra Pradesh (AP) microfinance crisis of 2010, which turned some coverage for microfinance hostile. We chose this crisis because it occurred after the honeymoon period when the Grameen Bank and Muhammad Yunus won the 2006 Nobel Peace Prize, when a flurry of bad press about microfinance started appearing in international media. Thus, this crisis marks a natural break in favorability of media coverage.

"Practitioners believe that women tend to be more risk-averse in their choice of investment projects, more fearful of social sanctions, and less mobile (and therefore easier to monitor) than men – making it easier for MFIs to ensure a higher rate of repayment."[5] Feminist policies encouraged by development economists throughout academic institutions and universities recommend making loans to women because women are likely to use their money responsibly by investing in their businesses and feeding their families rather than wasting their money on alcohol and tobacco. This unwavering faith in women is essentially feminism. We can define feminist policies as those rules, incentives, and regulations that encourage women to be financially literate and financially independent of their families and spouses, which can often lead to a better economy. These feminist policies represent a change for Indian society, which is

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1 Sa-Dhan, The Bharat Microfinance Report 2015-16, New Delhi (2015).
2 R. Sengupta., & C.P. Aubuchon, The microfinance revolution: An overview. *Review-Federal Reserve Bank of Saint Louis*, *90*(1), 9 (2008).
3 Sengupta and Aubuchon, 2008, p. 24.
4 Tara Nair & A. Tankha, Inclusive Finance India Report 2014 (2014).
5 R. Sengupta & C.P. Aubuchon, 24 (2008).

composed generally of patriarchal economic systems where men are heads of their households and breadwinners.

In this paper, we employ a natural experiment design based on a first difference analysis to analyze change in profitability of microfinance institutions in India due to the crisis in AP that resulted in media coverage of microfinance turning unfavorable. Since these effects could vary depending on the ideology of the media outlets, we chose to include multiple newspapers of different political ideologies published from within India and outside in order to examine the relationship between media coverage of microfinance and profitability of the institution. Ultimately, we found that media coverage of microfinance did not impact profitability of microfinance institutions, which surprised us because we thought that feminist policies would drive global recognition and investment. This surprise stems from the fact that microfinance investors are generally banks, not the global public.

I. THEORY

In order to shape the research question theoretically, we draw on framing and agenda setting, two theories of media effects that apply here. We then integrate these with the literature on microfinance and on the Andhra Pradesh crisis to elucidate the specific hypothesis.

Mody argues that news has the power to be a 'cross-national public educator.'[6] Her analysis of the conflict in Darfur also suggests that in addition to violent, dramatic coverage of conflicts, inclusion of potential solutions to a conflict may be commonly framed as political issues.[7] She discovered that the two American newspapers she analyzed (The New York Times and The Washington Post) focused on solutions less than European newspapers and that the amount of coverage was still quite high (56% of Times articles, 68% of Post articles).[8] She also found frames divided into global, national and local frames. Global frames discussed international organizations fighting the problem of hunger, including the United Nations, the World Bank and NGOs.[9] National frames explained how the U.S. would play a role in the problem or solution.[10] Local frames gave audiences information on how they could engage with the topic of hunger in Africa, such as food drives or races or other fundraisers.[11] In local stories about hunger, Kogen found that hunger was most frequently "framed as a problem with local solutions, affecting citizens of the local community, and to be addressed by the local community."[12]

> Witnessing remote suffering on television, we are thus especially moved by pictures of children, women and elderly victims. A child is, however, the most ideal victim in the perspective of compassion."[13] In using episodic

[6] L. Kogen, Not up for debate: US news coverage of hunger in Africa, International Communication Gazette (2014).
[7] *Id*.
[8] *Id*.
[9] *Id*. at 16.
[10] *Id*.
[11] *Id*.
[12] *Id*.
[13] Hoijer, 2004, p. 522 in L. McCarty Framing Famine: An Analysis of US Media Coverage of the 2011 Famine in the Horn of Africa (2013).

> frames (meaning particular cases of TV news reporting), rather than themes, research shows news articles that profile a smaller number of humanitarian disaster victims tend to generate more support than larger numbers.[14]

McCarty employed a content analysis of articles about hunger relief in the Horn of Africa.[15] Since there were very few articles in her data set, she drew fewer conclusions about framing than about the media's agenda-setting function to make global poverty relevant.[16]

Thus, when stories about global poverty are framed in a particular way, they have the capacity to set the public agenda by eliciting public sympathy. Similarly, when stories about microfinance are framed in a particular way about women lifting themselves from poverty, we argue that they have the capacity to set the public agenda by drawing out compassion from the global audience. Who composes the audience? Surprisingly, most donors to MFIs in South Asia are not individuals but are rather financial institutions. In 2010, development funding from financial institutions was $2.36 billion in India, where legislation requires financial institutions like banks to invest in "priority sectors" like microfinance (Gaul, 2010, no page numbers). Further, the impact of agenda-setting and framing using the science of compassion has been studied extensively by psychologists as this quote summarizing psychologist Paul Slovic's work illustrates.

> There were experiments where people were shown a photo of a starving girl from Mali called Rokia, a seven-year-old girl, and asked to contribute in various scenarios. And then also a boy named Moussa. And essentially people would donate a lot of money. If they saw that Rokia was hungry, they wanted to help her. Likewise, when they saw a picture of Moussa, they wanted to help him. But the moment you put the two of them together and asked people to help both Rokia and Moussa, then at that point donations dropped. And by the time you ask them to donate to 21 million hungry people in West Africa, you know, nobody wanted to contribute at all."[17]

This paper draws on theories of agenda-setting (media coverage making it important to contribute to reduction in global poverty in the developing world in the eyes of the public) and framing (positive frames such as making microfinance seem like either a worthwhile way of helping poor women in South Asia or negative frames such as an exploitative form of loan sharking) to examine the media coverage of microfinance. The premise is that once the media sets the agenda for microfinance (by covering it extensively), the framing by each type of media correlates with fund flows to MFIs, consequently affecting their profitability. Before motivating the hypothesis, what follows is a brief review of microfinance with an eye on its media coverage along with an introduction to the specific empirical context, the Andhra Pradesh crisis upon which this study draws.

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[14] McCarty 19 (2013).
[15] *Id.*
[16] *Id.*
[17] Krista Tippett On Being: Nicholas Kristof, Journalism and Compassion http://www.onbeing.org/program/transcript/1914.

A. Media Coverage of Microfinance

Two events significantly impacted the way the media represented microfinance. The first was in 2005, when the UN nominated the year the 'International Year of Microcredit.' Then, in 2006, Dr. Muhammad Yunus and the Grameen Bank jointly won the Nobel Peace Prize.[18] For instance, on August 23, 2009, in an article by Nicholas Kristof and Sheryl WuDunn, "The Women's Crusade," a destitute Pakistani woman takes out a $65 MFI loan to buy beads and fabric to sell embroidery to city merchants. With the money she earns, she can pay off loans, educate her daughters, renovate her house, employ her neighbors, and keep borrowing.[19] Such coverage of microfinance in South Asia became less favorable after a series of events in 2010, often termed as the Andhra Pradesh crisis, which we next describe.

B. The Andhra Pradesh Crisis and Coverage of Microfinance

Generally, local media (Indian media) and global media (Western media that have worldwide coverage) both cover (farmer) suicides that occur after a cycle of drought or poor harvest. In Fall 2010, in one such cycle, some of the approximately 200 people who committed suicide in Andhra Pradesh, a southern province of India, were indebted customers of MFIs. These were people who couldn't afford to repay their loans, were subject to aggressive lending and unforgivingly high-handed methods of dues collection. This was the Andhra Pradesh crisis of 2010. The state decision to legislate against MFIs and the media's bad press composed the response to the Andhra Pradesh crisis:

> The state government came up with the Andhra Pradesh Microfinance Institutions (Regulation of Money Lending) Ordinance, 2010, that tightly restricts the freedom of operation of the MFIs in the state. The ordi¬nance, among other things, requires MFIs to register themselves, and prevents lend¬ing in cases where loans are already out¬standing. It allows for only monthly repay¬ments and demands the display of interest rates charged by the MFIs. Even as the Reserve Bank of India (RBI) constituted a committee to look into issues relating to MFIs, the Andhra Pradesh assembly rati¬fied the ordinance on 15 December, thus, paving the way for a new law governing the functioning of MFIs in the state.[20]

This state and media response was swift, controlled and sharp, rather than being cyclical, so it can be considered exogenous to the microfinance industry. Though the farmers' suicides due to indebtedness were endogenously related to the Andhra Pradesh crisis, the state and media response itself was exogenous. One story illustrates how suicides link to microfinance indebtedness.

> Lalitha Nursilmula was a cheerful sixteen-year-old girl, who could often be found singing along to popular Bollywood tunes on her way to class. She

[18] Arjun Bisen, Bronwell Dalton, & Rachel Wilson. The Social Construction of the Microfinance Industry: a comparison of donor and recipient perspectives. *Cosmopolitan Civil Societies: An Interdisciplinary Journal*, *4*(2), 65 (2012).

[19] B. Payne and G. Skinner, Regulation: interest rate caps and concept of usury. *Selected Works of Gray L. Skinner [website]< http://works. bepress. com/gray_skinner/1>[accessed 25 November 2013]*. (2010).

[20] Tara Nair, p. 23 (2011).

> was also bright and determined, focusing on studying commerce and economics at a local college in Godhumagudu. One day, while she was home alone, an employee of a microfinance company came to her village and asked her to travel to the community office where he could ask her a few questions. Once they arrived, the agent, the village head, and four members of the family's 'joint liability group" (villagers that had assumed collective responsibility for the debt) cornered Lalitha and demanded payment on an outstanding loan of 66,000 rupees that her family had borrowed to pay for the wedding of their elder daughter."[21]

Lalitha's family could not afford to pay. The loan sharks encouraged her to prostitute herself.

> Before taking her own life, Lalitha left a note imploring her parents to not take out any more loans, except to invest in the education of their younger son. Lalitha's suicide was one of many tragedies that swept over rural villages in Southern India this past year. At least seventy-five people facing pressure to repay loans to microfinance firms, have committed suicide in the fall of 2010 in the state of Andhra Pradesh. These suicides are generally linked to the deep shame that Indians feel towards failing to repay debt."[22]

This study explores favorable (or negative) global and local media coverage of microfinance immediately following this crisis with a content analysis. Presumably a shift in the slant of either global or local media coverage following the crisis could affect monetary flows from donors to MFIs.

C. Media Coverage after the 2010 Andhra Pradesh Crisis

After the Andhra Pradesh Crisis, microfinance has gone from being praised to being criticized as a means of exploiting the poorest of the poor.[23] Many recent empirical studies have found that there is no strong evidence of net income gains for borrowers through this process.[24] Indeed, given the nature of the loans (small amounts given for short durations at very high interest rates), this is scarcely surprising.[25] Banerjee et al. (2010) found, on the basis of a randomized controlled trial of households in Hyderabad, India, that existing business owners appeared to use microcredit to expand their businesses, while (poorer) households with low predicted propensity to start a business increased their spending on non-durable items, particularly food.[26] The study found 'no discernible effect on education, health, or women's empowerment.'[27]

Concurrent with the Andhra Pradesh crisis, Nobel Laureate Muhammad Yunus and the Grameen Bank received bad press around 2010-11 when Bangladeshi Prime Minister Sheikh Hasina put Yunus on trial twice for receiving earnings without

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[21] David Solan, How Consumer Bankruptcy Reforms Can Help Save Microfinance in India. *Or. Rev. Int'l L.*, *13*, 317 (2011).
[22] *Id*. at 317.
[23] Jayati Ghosh. x Microfinance and the challenge of financial inclusion for development. *Cambridge journal of economics* (January 26 2011).
[24] *Id*.
[25] *Id*.
[26] *Id*.
[27] *Id*.

governmental permission. Hasina also removed Yunus from the Grameen Bank for the crime of heading the bank at age 70, ten years past the mandatory retirement age of 60. A December 2010 Norwegian television documentary alleged that Yunus transferred Norwegian development funds from the Grameen Bank to another venture without prior approval in 1996. Yunus also faced a defamation trial against a local Bangladeshi politician when he said that politicians were only motivated by money.

We'd like to clarify that this episode regarding Yunus took place in Bangladesh and they aren't directly related to the Indian microfinance crisis. The Andhra Pradesh crisis occurred in south India while a comparable crisis occurred in Bangladesh around the same time. We only examine the coverage of microfinance in the Indian media (The Hindu and The Times of India) and global media. Therefore, our study focuses on the Andhra Pradesh crisis, but it also captures portrayals of Yunus and microfinance in Indian media along with global media, but does not examine the press in Bangladesh.

A Times of India article defends Yunus as a "target for name-calling, accusations and expulsion from the Grameen Bank."[28] An article in The Hindu entitled "Small loans add up to lethal debts" says the following about SKS Microfinance.

> Both reports said SKS employees had verbally harassed over-indebted borrowers, forced them to pawn valuable items, incited other borrowers to humiliate them and orchestrated sit-ins outside their homes to publicly shame them. In some cases, SKS staff physically harassed defaulters, according to the report commissioned by the company. Only in death would the debts be forgiven."[29]

The article goes on to describe the following: "Another SKS debt collector told a delinquent borrower to drown herself in a pond if she wanted her loan waived. The next day, she did. She left behind four children."[30] In this way, we can see that local Indian media criticizes microfinance after the Andhra Pradesh crisis.

The global media took a clear, supportive stance toward Yunus. An example of the global media defending Yunus comes in a 2011 Tom Cropper article in The Guardian, in which Cropper describes the attacks against Yunus:

While the spectacle of the rich making money from the poorest people in the world may seem unpalatable, this shouldn't detract from the significant good that can be achieved. The success of SKS attracted significant capital flows into the sector. While predominantly profit-seeking, this has the potential to greatly enhance the sector's capacity to help the poor."[31]

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[28] R. Bari. "The never-ending trial of Muhammad Yunus." *The Times of India.* (Sept. 2013) timesofindia.indiatimes.com/nri/citizen-journalists/citizen-journalists-reports/rashidul-bari/The-never-ending-trial-of-Muhammad-Yunus/articleshow/22757491.cms.

[29] Erika Kinetz. "Small loans add up to lethal debts." The *Hindu*. (February 26 2012) http://www.thehindu.com/todays-paper/small-loans-add-up-to-lethal-debts/article2933867.ecehttp://www.thehindu.com/todays-paper/small-loans-add-up-to-lethal-debts/article2933867.ece.

[30] *Id*.

[31] Tom Cropper. "Microfinance and the fallout from the Muhammad Yunus case." *The Guardian*. (January 26 2011). http://www.theguardian.com/social-enterprise-network/2011/jan/26/microfinance-and-the-muhammad-yunus-case.

Cropper's article takes sides about whether microfinance is good or bad, revealing a bias in favor of the Grameen Bank and Yunus.

The theories of framing and agenda-setting and the microfinance debate connect when we explore questions of how media coverage of microfinance sets the public agenda – or how favorably framed media coverage motivates the audience to donate to microfinance institutions. A "positive frame" is a favorable portrayal of microfinance; a "negative frame" is bad press after the microfinance debate. When Cropper defended Muhammad Yunus, the Grameen Bank and microfinance itself in international media (The Guardian), this was a positive frame. Framing shifts from positive to negative in the global and local Indian media after the Andhra Pradesh crisis. The question of the impact of this shift in framing is the one this thesis explored.

Specifically, we posed the following hypothesis.

H1: The change in the tone of media coverage (from positive to negative) in global and local media coverage of microfinance, post the Andhra Pradesh crisis, has had an adverse impact on the profitability of microfinance institutions in India over time.

II. METHOD

We considered the change in media coverage in global and local Indian media from Jan. 2006-Dec. 2012, changes that the Andhra Pradesh crisis motivated, as an exogenous discontinuity. The state and media response to the crisis was an external shock to the microfinance industry and not related to the suicides in a cyclical way, therefore we design this study as a regression discontinuity where we used the first difference analysis framework.

A natural experiment happens when an unexpected event or external reason assigns participants randomly to potential treatment or control group.[32] In this experiment, the Andhra Pradesh crisis is the cut-point. Our data falls in pre-crisis and post-crisis periods, based on a systematic content analysis of the media coverage. The first category (pre-crisis period) is 2009-2010 and the second category (as the post-crisis period) is 2011-2012. The forcing variable is favorability of coverage over time (2009-2012). The 2006-2010 pre-crisis period based on the fact that there was originally favorable coverage after Yunus won the Nobel Peace Prize in 2006 (jointly with the Grameen Bank) and microfinance experienced a honeymoon period. It must be noted that our experiment's first difference model does not separate out the effects of time moving and inflation.

This is a "natural experiment" or an "interrupted time-series analysis" but it is also a regression discontinuity.[33] First we established the Andhra Pradesh crisis as a discontinuity through a formal content analysis.

[32] Richard J. Murnane, John B. Willett. "Methods matter: improving causal inference in educational and social science research." Oxford; New York: Oxford University Press, 135-136 (January 26 2011).
[33] *Id.*

A. Analysis of Media Coverage

We examined coverage in six publications. These are The Hindu, The Times of India, The Economist, The New York Times, Financial Times and The Guardian. We chose these publications because they are reputed global and local media outlets that reflect public sentiment in India and in the world, and cover some range on the ideological spectrum. Table 1 and Table 2 respectively report the proportion of unfavorable coverage summarized as pre and post crisis, and annually. The content analysis shows that our choice of cut-point was accurate because the coverage of microfinance in both global and Indian media turned unfavorable after the AP Crisis. An article was deemed "favorable" with a holistic read of whether it described microfinance with positive words such as "eliminating poverty" and deemed unfavorable if microfinance was characterized as a "debt trap."

B. Data on MFIs

We obtained publicly available data from the Microfinance Information Exchange. MIX is a D.C.-based information exchange built to promote microfinance data. MIX produces a global annual dataset providing financial data on individual MFI's worldwide. MIX collects financial and operational data from MFIs using original source documents. These include audited financial statements, supported by additional questionnaires when necessary. Data collection is based on microfinance industry reporting standards under the rules of International Financial Reporting Standards.

The MIX historical dataset uses data from audits, internal financial statements, management reports or other documents. "MIX analysts and partners enter all data into the database; all data is reviewed by MIX staff and validated against a set of business rules before publication. All data submitted to MIX is submitted on a voluntary basis so if you find data is missing on an MFI's profile, it means the institution did not submit that data to MIX or the institution is no longer in operation," the FAQ section of MIXMarket.org's website says.

To ensure the accuracy of submitted data, MIX's database review system conducts more than 135 quality checks. Users can view and download source documents directly from MIX Market to perform their own validation of the data entered by MIX.

C. Analysis

Media coverage followed time in that as time progressed past the "pre-crisis" period of 2006-2010 to the "post-crisis" period of 2011-2012, media coverage became more unfavorable in light of the crisis.

We used Ordinary Least Squares (OLS) simple regression to test the hypothesis that time was directly, positively correlated with profitability measures of gross loan portfolio. We modeled time (in the form of a 0-1 dummy variable known as "PreCrisis") against log (gross loan portfolio). We used logs rather than the actual dependent variable for GLP because the skewness distribution showed a right-skew, and logarithmic transformation is a commonly used technique to symmetrize such distributions.

The control variables were: age (a dummy variable where we signified "mature" and 0 signified "new" or "other"), number of active clients and average loan balance per borrower. They all had high n values (a high enough number of cases) to serve as controls. Loan balance pertains more to the quirks of individual MFIs than to how media coverage impacts profitability. Age is in the model because the older and more established a fund, the more profitable it might be in ways that have nothing to do with media coverage. Finally, number of active clients impacts MFI profitability but has nothing to do with media coverage, and so it should be isolated. Ultimately, our control variables are supposed to account for variations in MFI profitability that are separate from media coverage, and to hold these variations constant to incorporate omitted variable bias, to isolate the impact of favorable media coverage on gross loan portfolio, profit margin and return on equity, all measures of MFI profitability.

III. RESULTS

Our dependent variables were all not normally distributed. Table 3 where we report each variable's descriptive statistics reveals these skews.

Table 3

Means, standard deviation and skewness of independent, control and dependent variables, N=303.

	N	Mean	Standard Dev.	Skewness	Error
	380	.65	.48	-.64	.125
Gross Loan Portfolio	371	54408266.84	132822655.45	4.25	.127
Log(GLP)	371	6.95	.92	-.41	.127
Average loan balance per borrower	358	483.44	6202.12	18.91	.129
Return on equity	312	82.94%	1573.53%	17.49	.138
Number of active borrowers	363	349183.25	823137.28	4.17	.128
Age(Dummy)	380	.44	.50	.22	.125
Profit margin	343	-28.09%	280.23%	-10.12	.132
Valid N (listwise)	*303*				

There may be an omitted variable bias here because companies that went bust may not have reported their data to MIX, and thus the correlation may have been even more negative than the negative correlation that we found. But even if there is an omitted variable bias, complete data for the top ten Indian MFI's (which compose 85% of the microfinance industry) was included and so the bias could not be overwhelming. The Indian economy doubled from approximately $900 billion to $1800 billion between 2006 and 2012, and so this omitted variable bias seems less potent because

MFIs were still growing rather than going bust (while MFIs going bust would have led to omitted post-crisis data).

Table 4

Mean values of profitability measures before and after AP Crisis, N=419.

	Mean	(Std. Deviation)
Log(GLP)	6.95	(.92)
Log(GLP)	7.06	(.86)

Note: PreCrisisN=306, PostCrisisN=113.

This drastic change in N occurred because many MFI's listed their pre-crisis financials and not their post-crisis financials, as MIX data is self-reported.

Table 5

Regression of log (Gross loan portfolio) against PreCrisis, N=371.

		Unstandardized Coefficients			Sig.
Model		B	Std. Error	t	
1	(Constant)	6.738	.069	97.523	.000
	PreCrisis	-.174	.077	-2.270	.024
	Average loan balance per borrower	-8.540E-6	.000	-1.444	.150
	Number of active borrowers	6.085E-7	.000	13.169	.000
	Age (Dummy)	.330	.077	4.283	.000

R^2 = .418, *p*< .001. *N=371*

Log (GLP) predicted = 6.74 – .17 (precrisis) + .33 (age dummy), where loan balance and number of active borrowers have negligible correlation coefficients.

This equation details the associations between precrisis and log (gross loan portfolio), when other factors are held constant. Given that the dependent variable is logged (to base 10), the coefficient must be adjusted for using its antilog (that is raising it to power 10). The adjusted coefficient in this case (instead of a difference between predicted arithmetic means) is the ratio of the geometric means. In our model, the beta for precrisis is -.174, which when adjusted as 10^(-.174) = 0.67. This leads to the interpretation that for a unit change in precrisis, the ratio of the geometric means of the two predicted values of GLP would be 0.67 or 67%. In other words, our model demonstrates that GLP would be 33% less during the precrisis period (when the dummy variable precrisis =1) than GLP would be during the post crisis period (when the value of the dummy variable "PreCrisis" is '0').

The study set out to find whether favorability of media coverage after India's 2010 Andhra Pradesh crisis affected profitability of microfinance institutions in India, as measured by gross loan portfolio regressed against time. We found that unfavorable popular media coverage was correlated with microfinance institution profitability increasing by 33% after the AP crisis.

The results refute our hypothesis that favorability of media coverage correlates over time with profitability, where profitability is measured by gross loan portfolio. The fact that log (gross loan portfolio) is negatively correlated with the dummy variable precrisis is the most important, because log(GLP) is our focus variable. This means that as coverage became more unfavorable after the crisis, log (gross loan portfolio) went UP for Indian MFIs and actual GLP went up by 33%.

IV. DISCUSSION

This analysis refutes our hypothesis on gross loan portfolio, the dependent variable of interest, in that we expected and hypothesized that gross loan portfolio would fall as media coverage became less favorable. Gross loan portfolio rose rather than fell, while log(GLP) rose as media coverage became less favorable. The results disprove our directional hypothesis that favorability of media coverage correlates over time with profitability, where profitability is measured by log(GLP).

An interesting conclusion this study can draw is that popular media coverage does not influence fund flows into microfinance institutions. Why is this interesting? A favorable perception of microfinance among stakeholders is reflected in favorable media coverage of microfinance, and vice versa. After the Andhra Pradesh crisis, unfavorable media coverage reflected an unfavorable perception of microfinance – but this was not enough to change fund flows among the public intellectual and investor stakeholders. Essentially, what the global public thinks is not especially relevant to the bank investors that drive microfinancing. Feminist policies that encourage banks to lend money to women work as long as women pay back their debts to the banks.

One explanation for this finding is that there was not sufficient media coverage to make a difference in fund flows. For example, there were only 5 articles about microfinance before the AP crisis and 10 articles after the crisis in The Hindu. Although the Indian media market has thousands of publications, The Hindu and Times of India may or may not serve as representative samples of the Indian market. If they are representative, then maybe there isn't enough coverage of microfinance at all. If these publications aren't representative of the Indian media market, then perhaps there do not exist one or two publications that are representative samples.

Another explanation is that microfinance grew with the Indian economy. In 2006, India's GDP was $949 billion; in 2007, it was $1239 billion; in 2008, it was $1224 billion; in 2009, it was $1365 billion; in 2010, it was $1709 billion; in 2011, it was $1836 billion; in 2012, India's GDP was $1832 billion. These GDP changes show that the economy grew almost 100% from the beginning of the pre-crisis period to the end of the post-crisis period. An inference is that the crisis did hurt growth in the industry, but did not eliminate or reverse growth. A related inference is that the MFIs could have grown even more but for the crisis. The Indian economy's growth reflected its investments in women and that is essentially a feminist message and a victory for the status of women in developing countries, especially in the Global South. Government rules and regulations that encourage microfinance encourage economic growth in India.

Yet another possibility is that the government's response to the Andhra Pradesh crisis effectively contained it. Andhra Pradesh's chief minister passed "An Ordinance to protect the women Self Help Groups from exploitation by the Micro Finance Institutions in the State of Andhra Pradesh," which sought to place a range of new conditions on MFIs, including district-by-district registration, requirements to make collections near local government premises, a shift to monthly repayment schedules, and other measures that affect how MFIs operate. Because the Indian government contained the crisis, it did not spread to other states. Thus, the whole microfinance industry countrywide (25% of which Andhra Pradesh composed) did not shrink with the regulations.

An alternative understanding is that re-examining the literature in light of the results make it clear that MFI donors are sophisticated investors, who may read niche and trade publications on finance, rather than ordinary consumers of the popular media who are easily swayed by a feel-good story. We discover something surprising about the Indian microfinance industry and its dependence on foreign investment: "Unlike much of the world, lending to Indian MFIs is almost entirely local. International investors play little to no direct role in the sector, where less than 3 percent of funds are from foreign sources. The reliance on local funding is the combined result of regulations that prohibit foreign investment and subsidize local investment: priority-sector lending requirements encourage commercial banks to finance Indian MFIs and legislation prohibits foreign investment" (Sapundhieva, 2011, no page numbers). In fact, microfinance investors are local Indian banks three quarters of the time (Sapundhieva, 2011, no page numbers). This careful rereading of the MIX website and microfinance literature explains why unfavorable international media coverage of microfinance did not deter growth in the microfinance industry: foreign investment is prohibited and local investors are institutions rather than individuals. Even when India gets a bad reputation in global media, like during the Andhra Pradesh crisis, its domestic investments are strong at home and policies promoting female empowerment prevail.

This study contributes to our understanding of the mechanisms of microfinance investment, specifically as to who is investing in microfinance organizations and what media they read. Microfinance donors do not rely heavily on reading The New York Times, The Guardian, The Financial Times, The Economist, The Hindu or The Times of India. If these donors relied on the popular media, MFI profitability would drop over time, which it did not.

Another factor to consider is that casual readers of the six reputable publications are not most lenders but rather sophisticated investors and business decision makers were the primary lenders. "The lion's share of donors/investors to MFI's seem to be agencies and banks and foreign governments even rather than individual foreign investors." [34] Perhaps governments, agencies and banks are less responsive to favorability of media coverage and more responsive to their own prior course of dealing with an MFI and the actual loan repayment rates/data of the MFI. Our hypothesis did not encapsulate the corporate structure of microfinance entities. That may be why unfavorable media coverage of microfinance did not deter profitability in the microfinance industry.

Yet another plausible reason for the observation that microfinance as an industry grew in 2011 and 2012 is that data reporting became more streamlined through MIX. There was a 19% growth rate of gross loan portfolio from 2011-2012 to 2012-2013.[35] Even if coverage was less favorable post-AP crisis, the decrease in favorability of coverage was offset in some way by growth of MFIs as a whole. Specifically, this

[34] Tara Nair, Financing of Indian Microfinance: Evidence and Implications, *Economic& Political Weekly*, *47*(25), 33-40 (2012).

[35] Tara Nair, Microfinance: Lessons from a Crisis, *Economic & Political Weekly*, *XLVI(6)*, 23-2.

means that the AP crisis did not spread to other states and markets in the country in systemic fashion. Investors still had confidence in the microfinance market and its growth potential overall, because regulatory efforts in the sector restored investor confidence.

CONCLUSION

This study contributes to the conversation surrounding the value scholars attribute to framing and agenda-setting. According to the literature by Baum and Potter (2008) and Zhang and Meadows (2012), framing and agenda-setting are devices used to analyze the impact of media coverage on public policy and in other fields. Though feminist policies in India garner global acclaim, that prominence of microfinance does not automatically translate to greater investment in microfinance. Ultimately, changing a worldwide audience's perspective does not immediately ove direct investors of microfinance institutions because they are largely out to make a profit rather than gain goodwill. This study's findings help the community of scholars understand the limitations of framing and agenda-setting models in depicting the abilities of the popular media. Future research could address whether the Indian and international niche and trade media have more framing and agenda-setting power over MFI investors than popular media do.

Ultimately, the poet David Whyte could have predicted the findings of this study when in "Loaves and Fishes" he said,

> "This is not the age of information.
> This is not the age of information.
> Forget the news, and the radio, and the blurred screen.
> This is the time of loaves and fishes.
> People are hungry, and one good word is bread for a thousand."

Where sophisticated, humanitarian microfinance investors are willing to give "bread for a thousand" to the poor in India despite unfavorable coverage in the popular media, the conclusion to draw is that this is not "the age of information," and so the world can "forget the news, and the radio, and the blurred screen."