

Culture, Economics, and Cross-National Variation in the Founding and Social Outreach of Microfinance Organizations

Eric Yanfei Zhao
University of Alberta School of Business
and National Institute for Nanotechnology
2-26 Business Building, Edmonton, AB
Canada, T6G 2R6
Email: eric.zhao@ualberta.ca

Tyler Wry
The Wharton School
University of Pennsylvania
2031 Steinberg-Dietrich Hall
Philadelphia, PA 19104-6370
Email: twry@wharton.upenn.edu

Working Paper

Please do NOT circulate without the authors' permission

ACKNOWLEDGEMENT

We appreciate comments on earlier drafts of this paper from Howard Aldrich, Bill Barnett, Adam Cobb, Anil Gupta, Michael Lounsbury, Patricia Thornton, Tiantian Yang and seminar participants at the University of Alberta, University of Maryland, and The Wharton School. An earlier version was awarded the Carolyn Dexter Award at the 2011 Academy of Management Meeting. We gratefully acknowledge funding support from the Global Initiatives Research & Teaching Materials Program at the Wharton School, The National Institute for Nanotechnology, and The Killam Trusts.

Culture, Economics, and Cross-National Variation in the Founding and Social Outreach of Microfinance Organizations

ABSTRACT

Microfinance is widely hailed as a sustainable approach to global poverty reduction, particularly among women who are over-represented among the world's poor and often lack access to traditional labor markets and financial instruments. In this regard, evidence suggests that microfinance positively affects women's empowerment, social capital, and economic conditions. However, there is considerable cross-national variance in the prevalence of microfinance organizations as well as in their commitment to women's lending, the underlying causes of which are not well understood. The few studies which have examined these issues offer economic explanations, promoting neoliberal economic reform as a catalyst for entrepreneurial activity; an approach that is also favored by development agencies such as The World Bank. We argue that this approach is limited, however, because it fails to take into account the status of women as microfinance clients. Combining insights from organizational sociology and cultural-institutional perspectives on gender inequality, we suggest that patriarchy will suppress the founding of microfinance organizations as well as their outreach to women. We further argue that while neoliberal economic policies may help address the patriarchal barriers to microfinance organization foundings, they will likely amplify its suppression of women's lending. (192 Words)

Over the past 30 years, microfinance has gained considerable acclaim as a tool to address poverty by extending financial services to impoverished populations. Without access to the collateral necessary to secure loans, the poor are generally excluded from formal financial institutions and forced to rely on exploitative local lenders. This contributes to chronic capital shortages and cycles of indebtedness which perpetuate poverty and frustrate economic development. Microfinance organizations (MFOs) help to address this by providing small collateral-free loans and other financial services to under-served populations with the aim of fostering business creation, asset building, and stable household consumption. Beyond this, though, microfinance is distinguished by its focus on lending to women as a means to address poverty: commitment to women's lending is a key feature of microfinance as an organizational form and, reflecting this, over 70% of all loans are made to women (Daley-Harris 2009; Sanyal 2009). The rationale for this is that women are over-represented among the world's poor and generally have limited access to traditional channels for upward mobility such as financial and labor markets. Women also play a key role in their children's education and health, increasing the likelihood that their economic gains will translate into broader social benefits. As such, there is an acute need for interventions that help women to break out of poverty (Yunus 1999).

To date, scholarly evaluations of microfinance have been mostly at the micro level, focusing on factors associated with the efficient delivery of loans and how these impact borrowers and their families. This work has produced a number of important findings, particularly with regards to the outcomes of women's lending. Studies suggest that women are more likely to repay their loans, generate financial returns, and invest these in their families than are men with similar economic standing (see Armendariz and Morduch 2010 for a review). There is also evidence that participating in microfinance positively affects women's social and

economic empowerment (Kabeer 1998; Sanyal 2009). At a macro level, however, the potential to deliver these benefits depends on the level of development in a country's microfinance sector and the degree to which MFOs focus on women's lending; areas where current studies offer limited insight.

Despite widespread support for its global expansion, there have been few cross-national studies of microfinance. Moreover, theoretical arguments about how to promote the emergence and outreach of MFOs are currently dominated by neoliberal ideas that focus on creating a supportive resource environment for business by reducing taxes, limiting bureaucracy, opening markets, and increasing foreign investment (see Armendariz and Morduch 2010). We view this as problematic for two reasons. First, it assumes that the benefits of microfinance are best pursued through economic interventions that may be reasonably expected to spur MFO foundings, yet have unclear implications for women's lending. Second, it does not recognize the unique status of women as microfinance clients, thus overlooking the potential for cultural factors such as patriarchy to influence a country's microfinance sector.

To help address these shortcomings, we draw on insights from cultural-institutional approaches to patriarchy (Acker 2006; Ridgeway 2011) as well as arguments that focus on neoliberalism and its implications (Babb 2005; Davis 2009; Fligstein and Shin 2007). We suggest that both are important for understanding the dynamics of a country's MFO sector because of their potential to affect the availability of key resources such as capital, customers, employees, and legitimacy (Pfeffer and Salancik 1978). Specifically, we expect that neoliberal policies will contribute to a more fertile investment climate, thus catalyzing MFO foundings, but that this will suppress women's lending because financial capital requires a return and women tend to be poorer, and thus less profitable clients, than men. In addition, we predict that

patriarchy will suppress both foundings and women's lending because of its potential to create legitimacy challenges for MFOs and interfere with their ability to access financial capital, employees, and customers. Beyond this, though, we argue that economic and cultural factors will interact in ways that affect our outcomes of interest. To this end, we suggest that neoliberal policies may help offset the financial constraints that patriarchy creates for MFO foundings, but amplify its suppression of women's lending by creating financial inducements to lend to less-poor (typically male) clients.

Our empirical design is both longitudinal and cross-sectional, covering the establishment and lending patterns of over 1800 MFOs in 168 countries between 1995 and 2007 – a period when microfinance organizations proliferated both in number and global reach. Overall, we find considerable support for our arguments, suggesting that patriarchy is an important consideration for understanding the emergence and focus of MFOs in different countries. Further, our results indicate that neoliberal economic policies have the potential to undermine the efficacy of MFOs in fulfilling their women's empowerment mission – even as they succeed in catalyzing foundings – and that this effect is amplified in patriarchal countries where the need for women's lending is greatest. As such, we go beyond studies that focus on patriarch's role in shaping women's experiences within organizations (Reskin and McBrier 2000; Smith 2002), and show that it has implications for understanding the dynamics of certain organizational populations as well. Further, by illustrating how these effects are amplified and attenuated in conjunction with economic factors, we provide evidence that cultural influences may not only shape the diffusion of neoliberal policies (Henisz, Zelner, and Guillen 2005; Prasad 2005; Weber, Davis, and Lounsbury 2009), but also the effects that they have once implemented.

MICROFINANCE, POVERTY ALIEVIATION AND WOMEN’S LENDING

Despite a gradual improvement in living standards around the world, there were still about 1.4 billion people living below the international poverty line of US\$ 1.25 a day in 2005 (The World Bank March 2010). These people typically live in rural and semi-rural areas and suffer from a lack of food, education, health care and financial capital. Although there is a pressing need for financial access among these individuals, they rarely have the collateral necessary to secure loans and banks face high transaction costs when dealing with them because more effort is required to gather and evaluate information and to enforce contracts once loans are made (Bhatt and Tang 1998). In addition, monitoring costs are similar regardless of loan size, making small loans financially unattractive (Armendariz and Morduch 2010; Ledgerwood 1999). For these reasons, bank loans to impoverished people are rare. Alternate sources of affordable credit such as government programs and rural co-operatives have proved similarly ineffective as financial instruments for the poor due to partisan lending and a lack of formal management expertise, respectively (Armendariz and Morduch 2010; Robinson 2001). Consequently, many of the world’s poor are forced to rely on loan sharks and other local lenders who charge very high interest rates, resulting in cycles of indebtedness and a chronic lack of capital to finance entrepreneurial ventures, grow businesses, or pursue other economic endeavors.

Since the mid-1980’s microfinance has emerged as a globally popular anti-poverty intervention designed to extend affordable credit to impoverished people. The rationale is that individuals have the potential to break out of poverty when they have access to loans that enable them to start and grow small businesses (Armendariz and Morduch 2010; Rutherford 2009; Yunus 1999). In order to address challenges associated with the high risk and monitoring costs of lending to the poor, a key innovation is that loan repayment is promoted through social

mechanisms such as ‘lending circles’ where individuals without collateral obtain and repay loans collectively (Sanyal 2009). Thus, rather than securing a loan with material resources, the group structure encourages members to monitor each other and sanction shirking members. As such, microfinance helps to resolve the difficulties associated with making loans to impoverished populations and is generally considered a promising approach for alleviating poverty (Anthony 2005; Armendariz and Morduch 2010; Laffont and Rey 2003).

Beyond this, though, there is widespread recognition that addressing poverty in a meaningful way requires that microfinance organizations focus on lending to women. For many in the sector, “microfinance is all about banking for women [and] pioneers such as Banco Sol and the Grameen Bank were built around serving women” (Armendariz and Morduch 2010: 211). The importance of reaching out to women is underscored by the fact that they comprise over 70% of the world’s poor, and an even higher proportion of the world’s ‘poorest’ (Daley-Harris 2009). Women also tend to be marginalized in financial and labor markets (Correll 2004; DeVault 1991; Ridgeway 2011), and these patterns of disadvantage are amplified in countries where patriarchal belief systems emphasize women’s domestic roles, place little importance on their education, and block the inheritance of property which could be used as loan collateral (Grown and Gupta 2005). To combat this, MFOs actively target women as borrowers – over 70% of loans are made to women (Daley-Harris 2009) – and many take an active role promoting female empowerment. In addition, lending circles are comprised almost exclusively of women and are used as a forum to share personal worries, domestic troubles, and community issues (Rutherford 2009; Sanyal 2009). Training sessions and conferences are also frequently organized where MFO workers “[inform women] about their legal rights and entitlements and [teach them] to critique prevailing social attitudes and practices” (Sanyal 2009: 537).

Although some studies have highlighted the potentially negative effects of microfinance (e.g., Faraizi, Rahman, and McAllister 2011; Karim 2011; Mayoux 1999), considerable evidence supports the assertion that lending to women contributes to positive economic and social outcomes. With regards to economic advancement, studies suggest that although banks face higher costs lending to women because they tend to be poorer than men, they also tend to be more conservative with their investments, leading to more reliable business growth and reduced default risk (Armendariz and Roome 2008; Frank 2008; Kevane and Wydick 2001). There is also evidence that because domestic commitments reduce mobility, lending circles have a stronger influence on women's repayment rates (Armendariz and Roome 2008; Khandker, Khalily, and Khan 1995). Further, women are more likely to make investments in their children's health and education, potentially creating spillover benefits to microfinance lending (Blumberg 1989). The impact of microfinance on women's empowerment is somewhat murkier, however, with reports of increased tension and spousal violence stemming from the fact that women's loans can upset domestic power structures (Johnson 2000; Mayoux 1999; Rankin 2002). Other studies have found, however, that participating in microfinance increases contraceptive usage (Rahman and DaVanzo 1997) and can enhance women's social capital, autonomy, and perceptions of self-efficacy (Sanyal 2009; Swain and Wallentin 2009).

Looking beyond micro-level outcomes, however, it is apparent that understanding the potential for microfinance to have a meaningful impact – both in general terms, and on women in particular – is related to the level of development in a nation's MFO sector and the degree to which these organizations lend to women. Data compiled by the Microfinance Information Exchange (MIX) shows considerable cross-national variation on both measures (mixmarket.org),

the sources of which are poorly understood. As such, we focus on theorizing factors that may create variation in the level of MFO foundings and women's lending in different countries.

THE INFLUENCE OF NEOLIBERAL ECONOMIC POLICIES

Beginning in the 1980's economic thought began to shift from Keynesian ideas about the necessity of state intervention in the economy to a set of principles that emphasized free and unencumbered markets as an engine of economic growth. Promoted by right leaning governments and promulgated globally by international agencies such as the International Monetary Fund (IMF) and World Bank, this neoliberal ideology advocates for low taxes, limited economic and business regulation, retrenchment of the welfare state and government subsidies, privatization of public entities, the opening of domestic markets, and increased mobility for international capital. Such policies are assumed to create a supportive environment for business, promoting entrepreneurship as well as the growth of extant firms. As a result, economists believe that the implementation of these policies has created hundreds of billions of dollars in economic gains among developing nations (Dobson and Hufbauer 2001). Neoliberalism is not without its critics, however, and both economists and sociologists have highlighted its potentially detrimental effects on local traditions as well as human security (Babb 2005; Campbell 2010; Kaplinsky 2001). In the context of microfinance, we anticipate both positive and negative outcomes. The implementation of neoliberal policies may contribute to a business-friendly resource environment that promotes MFO foundings, but also suppresses women's lending.

At base, starting a microfinance organization is an entrepreneurial act. Reflecting this, most work on the development of a country's microfinance sector has followed the economic literatures on regional development and entrepreneurship which augur for the benefits of

neoliberal market reforms. To this end, development economists have presented evidence that limiting taxes and business regulations, encouraging open markets, and increasing foreign capital flows can stimulate economic activity within a country (Alfaro, Chanda, Kalemli-Ozcan, and Sayek 2010; Balasubramanyam, Salisu, and Sapsford 1996). Linking this to entrepreneurship, Rastin (2003) found that liberal foreign investment policies stimulated business creation in Singapore, and Busenitz and colleagues (2000) found that a supportive regulatory and funding environment significantly predicted business creation in six countries. Expanding this to a sample of 85 countries, the Global Entrepreneurship Monitor (GEM) study found strong evidence that organization foundings were highest in nations with open markets, high foreign investment, and government support for entrepreneurship (Kelley, Singer, and Herrington 2012).

Following these insights, arguments about how to best foster the emergence of MFOs in a country have focused primarily on the implementation of neoliberal economic policies. For example, in her wide-ranging analysis, Joanna Ledgerwood (1999) dedicated a full chapter to identifying the economic conditions which support microfinance. Likewise, The Economist Intelligence Unit (2010) recently undertook a cross-national comparative analysis of ‘business environments for microfinance’. Based on the argument that MFOs are more likely to be launched when capital is plentiful and government intervention is minimized, both studies identified foreign investment, the complexity of business regulations, taxation rates, and low levels of corruption as key factors (Ledgerwood 1999; The Economist Intelligence Unit 2010).

Further, this general orientation is echoed in policy circles, where the development of global microfinance is a topic of considerable interest. Mirroring their longstanding support for business as a tool to promote social and economic welfare, transnational organizations such as the G20, IMF, and World Bank have developed a number of programs to help national

governments implement economic policies that are thought to foster development in the microfinance sector. As with earlier interventions such as structural adjustment lending, these initiatives tend to promote free and open markets, international capital flows, low taxes, and efficient business regulations (Cull, Demirguc-Kunt, and Morduch 2009; gpfi.org). While the effects of such policies on MFO foundings have not been studied systematically, we agree that they should have a positive effect. As such we predict:

Hypothesis 1 (H1): Neoliberal economic policies will be positively associated with the establishment of microfinance organizations in a nation.

Neoliberal Economic Policies and Women's Lending

Although neoliberal policies may be reasonably expected to promote MFO foundings, we anticipate the opposite effect for women's lending. Our prediction stems from the assertion that while increased foreign investment, low taxes, and supportive regulations may help to create a fertile and supportive business environment, this is unlikely to benefit all firms in similar ways. Those which focus on delivering social value may face increased stress as government subsidies wane and financial capital becomes more plentiful (Babb 2005; Margolis and Walsh 2003). Indeed, while foreign investors in microfinance are typically interested in supporting positive social impacts, financial returns are expected nonetheless (Armendariz and Morduch 2010). The motivation for women's lending, however, is to create social benefits by serving a population that is excluded from traditional financial channels precisely because it isn't profitable to serve them. Reflecting this, studies have found that MFOs which focus on women's lending are less likely to be financially self-sustainable than their more commercially oriented counterparts because, even if women take less risks with their loans, they are poorer than men and this

increases the cost of lending to them (Frank 2008). Consequentially, MFOs that focus on women's lending are more likely to depend on government grants and are less likely to attract capital market investments (Cull, Demirguc-Kunt, and Morduch 2007). Indeed, in a longitudinal study of 25 MFOs, Frank (2008) found that those which accessed foreign investments were less likely to lend to women and more likely to take advantage of pro-business economic policies to transition toward becoming for-profit financial institutions. As such we predict:

Hypothesis 2 (H2): Neoliberal economic policies will be negatively associated with women's lending among microfinance organizations in a nation.

THE INFLUENCE OF CULTURAL PATRIARCHY

Although we anticipate that neoliberal policies will affect the rate at which MFOs are founded and lend to women, we believe that this provides an incomplete picture because it overlooks the potential for cultural factors to affect the types of organizations that emerge in a country (e.g., Biggart and Guillen 1999; Haveman and Rao 1997; Lounsbury 2007; Rao, Monin, and Durand 2003). In particular, the economic view treats MFOs like any other type of venture, overlooking potentially important factors associated with their focus on women's empowerment. To help address this shortcoming, we integrate cultural-institutional perspectives on gender inequality (Acker 2006; Ridgeway 2011) with work in organizational sociology that focuses on the role of cognitive institutions, or logics, in shaping the dynamics of organizational populations (Thornton, Ocasio, and Lounsbury 2012).

We see a number of intersections between these approaches that are helpful for theorizing the link between patriarchy and the dynamics of a country's microfinance sector. Over the past decade, the logics perspective has emerged as a prominent approach for understanding cultural

influences on both the number and type of organizations that emerge in a region. Logics are typically defined as shared cognitive frameworks which constitute the ‘rules of the game’ in an area of institutional life¹: at a macro-level, logics provide a framework for making assessments about what is appropriate, moral, and reasonable, and at a micro-level they have been shown to shape individual identities and cognition (Biggart and Guillen 1999; Thornton and Ocasio 1999; Thornton, Ocasio, and Lounsbury 2012). This definition is well-aligned with literature on gender inequality where patriarchy is defined as a shared belief system where male domination serves as a model for individual identities, interpersonal relationships, and large-scale institutional arrangements (Charles and Grusky 2004; Hughes 2003; Ridgeway 2011; Witz 1992). The advantage of combining these approaches is twofold: First, studies at the intersection of patriarchy and organizations tend to focus on issues such as workplace inequality (Reskin and McBrier 2000; Smith 2002) and the barriers to female entrepreneurship (Karlan and Valdivia 2010; Wagner 2007). In comparison, the logics approach has been shown useful when organizations are the primary unit of analysis (e.g., Haveman and Rao 1997; Lounsbury 2007; Marquis and Lounsbury 2007). Second, logics are thought to have an influence across levels, but few studies have engaged this insight (Thornton, Ocasio, and Lounsbury 2012: 14). However, the cross-level influences of patriarchy are well established (Ridgeway 2011), sensitizing us to its potential to suppress MFO foundings and women’s lending through multiple channels. In this regard, we think that patriarchy may affect the legitimacy of MFOs in a country as well as their ability to access resources such as capital, employees, and customers.

Patriarchy and Organizational Legitimacy

There is a consistent finding in organizational sociology that legitimacy is a crucial resource for individual ventures as well as the organizational populations that they are members of (Hannan and Freeman 1989; Lounsbury and Glynn 2001; Pfeffer and Salancik 1978; Suchman 1995; Wry, Lounsbury, and Glynn 2011). As Aldrich and Fiol (1994: 647) note, “access to capital, markets, and governmental protection are all partially dependent on the level of legitimacy achieved in an emerging industry”. According to this view, legitimacy has two components: 1) cognitive legitimacy, which relates to understandings about what a particular type of organizations does; and 2) moral legitimacy, which is the degree to which organizations are viewed as being appropriate and desirable (Aldrich and Fiol 1994; Suchman 1995). Of the two, moral legitimacy is considered to be particularly important and logics play a central role by providing a framework for making judgments about the types of organizations and practices that are appropriate, or not (Biggart and Guillen 1999; Thornton and Ocasio 1999; Thornton, Ocasio, and Lounsbury 2012). Reflecting this, a number of studies have shown that logics support the emergence of conforming organizations. For example, Sine and Lee (2009) showed that wind farms were most likely to be founded in regions with a strong environmental protection logic. At the national level, Rao and colleagues (2003) similarly linked the emergence of French Nouvelle Cuisine restaurants to the ascendance of a professional logic which championed the innovation and autonomy that characterized this cooking style. And, looking across nations, Biggart and Guillen (1999) showed that the existence of different logics produced systematic variation in the automobile industries of Argentina, South Korea, Spain, and Taiwan.

Although studies to date have focused primarily on logics as enabling the emergence of certain types of organizations, the implicit quid pro quo is that they also provide a basis for the suppression of non-conforming organizations. In this regard, there is a common argument that

organizations which lack legitimacy tend to be either ignored or openly derided, affecting their ability to acquire resources and making failure more likely (Aldrich and Fiol 1994; Hannan and Freeman 1989; Zimmerman and Zeitz 2002). In this regard, it is instructive to recall, for example, that the first newspaper editor in the United States was jailed because the idea of a free press ran afoul of prevailing beliefs about censorship (Delacroix and Carroll 1983) and that a strong environmental protection logic undermined the ability of biotechnology firms in Germany to attract financial resources (Weber, Rao, and Thomas 2009).

Thus, in assuming that neoliberal policies will foster MFO emergence, economic perspectives miss the fact that microfinance may be resisted in countries with a strong patriarchal logic because their mission to empower women challenges shared understandings about the appropriateness of male dominance and women's subjugation (Acker 2006; Ridgeway 2011). Indeed, there is evidence that the moral legitimacy of MFOs is questioned in societies with a strong patriarchal logic (see Rutherford 2009). For example, Bangladeshi religious leader Maulana Ibrahim has criticized microfinance as being un-Islamic because of its potential to upset patriarchal gender relations and incite women to disobey their husbands (Hashmi 2000). And, while resistance is not always so overt, the legitimacy challenges that MFOs face in patriarchal countries may make it difficult for them to acquire resources (Aldrich and Fiol 1994; Zimmerman and Zeitz 2002). Indeed, a significant portion of the financial capital for MFOs comes from domestic sources and starting a MFO typically requires some form of government subsidy (Sapundzhieva 2011). A lack of legitimacy may decrease the availability of these financial resources and contribute to a resource environment that suppresses MFO foundings.

Moreover, studies have shown that a focus on women's lending makes it difficult for microfinance organizations to achieve financial self-sufficiency, even in supportive countries

(Armendariz and Morduch 2010; Ledgerwood 1999; The Economist Intelligence Unit 2010). As such, to the extent that a lack of moral legitimacy in patriarchal countries diminishes the supply of government subsidies and other forms of cheap capital, it may make it difficult for MFOs to sustain a focus on women's lending, potentially pushing them away from their social mission in order to facilitate resource acquisition.

Patriarchy and Customer Access

In addition to financial capital, the resource richness of an organization's environment depends on its access to customers (Aldrich and Fiol 1994). This may create further challenges for MFOs in countries with a strong patriarchal logic because institutionalized patterns of gender inequality create barriers to women's participation in the economic sphere (Correll 2004; Eagly and Carli 2007; Ridgeway 2011). For example, patriarchy associates women's roles and identities with domestic duties such as cooking, cleaning, and childrearing. In contradistinction, male roles are more highly valued and are associated with being breadwinners and protectors. While evidence suggests that this pattern is replicated around the world, it is strongest where patriarchy is high (Calas, Smircich, and Bourne 2009; DeVault 1991; Epstein 1988). In such contexts, wives are expected to be economically dependent on their husbands: male economic dominance is accorded respect and deference while an inability to provide for one's family is considered a violation of male gender roles (Bendroth 1999). Related to this, there are numerous anecdotal stories where husbands ask (or otherwise coerce) their wives to shy away from microfinance. For example, the husband of Helena Begum, a woman living in rural Bangladesh, insisted that she leave a lending group which he believed contributed to the tension and disputes within their family (Rutherford 2009; Schuler, Hashemi, and Badal 1998).

Moreover, this gendered division of labor may be internalized by women themselves, creating cognitive barriers to their participation in microfinance. Studies have shown that both genders internalize understandings about stereotypical gender traits, and thus the suitability of men and women for different types of work (Ridgeway and Smith-Lovin 1999). Consequentially, women tend to be less likely to enter entrepreneurship because fear of failure may lead them to be more conservative in acquiring capital and in decisions to start a business (Wagner 2007) and this is likely amplified when patriarchy is high. As such, high levels of patriarchy in a country may reduce the availability of female borrowers, making it more difficult for MFOs to access customers, and suppressing founding rates.

Clearly this also has implications for the ability of MFOs to lend to women: if female customers are scarce, MFOs will have difficulty lending to them. Further, there is evidence that women's lending is resisted in patriarchal countries, even when MFOs reach women borrowers. For instance, there is evidence of husbands withdrawing support for their wives ventures, or even sabotaging them, if they feel it threatens their dominant economic position in the household (Leach and Sitaram 2002). Further, by internalizing their own domestic roles and men's economic ones, evidence suggests that women in highly patriarchal countries may be more likely to cede loans to their husbands or allow them to take control of the returns that they bring (Karim 2011). Both practices divert loans away from their intended purpose, potentially resulting in fewer funds being invested back into a business to support its growth and thus contributing to higher loan default rates (Armendariz and Morduch 2010; Rahman 2001).

Patriarchy and Employees

A final pathway through which patriarchy may affect MFOs is by reducing the pool of qualified female employees available to them in a country. Men and women can both work as MFO loan officers. However, because women constitute the major customer base for MFOs, access to female employees is particularly important (Iskenderian 2011; Zacarias and Togonon 2007). Female loan officers provide role models for women in lending groups and offer a tangible example of women's empowerment. Further, it is easier for these loan officers to interact with women clients because same-gender relations facilitate open dialog about financial questions and problems in the home (Ridgeway and Smith-Lovin 1999). As a result, evidence suggests that, on average, female loan officers enjoy better relationships with their clients and have lower default rates than their male counterparts (Beck, Behr, and Guttler 2009).

However, a strong patriarchal logic may result in lower investments in women's education and barriers to acquiring professional training – particularly in areas such as law, accounting, and finance which are important knowledge domains for loan officers, but bastions of male domination (Ridgeway 2011; Tam 1997). Reflecting this, commentators have noted the difficulty that MFOs have in attracting qualified female loan officers (Zacarias and Togonon 2007) and we expect that this will provide a signal that deters actors from launching MFOs in a nation (Hannan and Freeman 1989). In addition, given the difficulties associated with making loans to women absent female loan officers (Ridgeway and Smith-Lovin 1999; Zacarias and Togonon 2007), inequities in professional training may also create a barrier to women's lending in patriarchal countries.

To summarize, we anticipate that a strong patriarchal logic will suppress the rate at which MFOs are founded and lend to women in a country because of its potential to affect the

availability of crucial resources while making it difficult for MFOs to access women borrowers and continue lending to them. Stated formally, we predict that:

Hypothesis 3 (H3): High levels of patriarchy in a country will be negatively associated with the establishment of microfinance organizations in a nation.

Hypothesis 4 (H4): High levels of patriarchy in a country will be negatively associated with women's lending among microfinance organizations in a nation.

INTERACTIONS BETWEEN PATRIARCHY AND NEOLIBERAL POLICIES

In addition to the direct effects that we have hypothesized for economic and cultural influences, we suggest that they will also affect the development of a country's microfinance sector through their interaction. With respect to founding rates, we expect that neoliberal policies will ease the resource constraints that patriarchy places on MFO emergence. Specifically, whereas a strong patriarchal logic may suppress government subsidies and other domestic capital sources, policies that encourage the flow of foreign capital, reduce the costs and risks of doing business, and ease regulatory barriers to entrepreneurship may provide MFOs with alternate capital sources and a more supportive operating environment to leverage them in. Thus, while economic policies are unlikely to affect the availability of female customers or employees, they may help to attenuate some of the financial barriers to founding. As such, we predict that:

Hypothesis 5 (H5): Neoliberal economic policies will attenuate the negative influence of patriarchy on the establishment of microfinance organizations in a nation.

In contradistinction, we expect that neoliberal policies and high patriarchy will create a confluence of push and pull factors that lead MFOs away from their focus on women's lending at

a greater rate than either factor in isolation. As we've argued, it may be difficult for MFOs to focus on women's lending in patriarchal countries. In addition, economic policies which are conducive to capital accumulation by business and encourage foreign investments in MFOs may pull organizations away from their focus on lending to unprofitable poor women. Thus, in countries where a strong patriarchal logic pushes MFOs away from their social mission and economic policies offer financial incentives for such moves, we expect that MFOs will have a significantly diminished focus on women's lending. As such, we predict that:

Hypothesis 6 (H6): Neoliberal economic policies will amplify the negative influence of patriarchy on women's lending among microfinance organizations.

DATA AND METHOD

We test our hypotheses with a cross-national time-series dataset on the establishment of MFOs and their social outreach to women in 168 countries between 1995 and 2007. Our analysis starts in 1995 because this was the first year where our data for MFO performance and neoliberal economic policies were available and ends in 2007, before the beginning of the most recent global financial crisis. In total, our dataset includes 1808 MFOs. Of these, 1145 were founded in our analysis period and 1455 reported data on their women's lending activities. Our data is structured by country-year for founding rate models and MFO-year for women's lending models. We collected raw data for both sets of analyses from multiple sources.

Dependent Variables

Our dependent variables are the number of MFO foundings per country-year and the proportion of women borrowers served per MFO-year. Data for both variables is from the Microfinance Information Exchange (MIX). MIX focuses on providing comprehensive,

objective, and relevant information about microfinance providers and its data is used extensively in microfinance research (e.g., Armendariz and Morduch 2010). While the MIX data is fairly comprehensive, it does not cover all MFOs that have ever existed in the world. However, the organizations that are included represent over 85% of global microfinance customers and the number of missing organizations declines over time (Daley-Harris 2009). This gives us confidence that our analysis includes most – and certainly the most significant – MFOs that were active over the period of our study. Further, as Figure 1 shows, there were very few MFOs until the late 1980s and global founding rates began to increase dramatically in the early 1990’s. Thus, our timeframe captures much of the early emergence and growth of global microfinance.

Insert Figure 1 about here

Our first dependent variable is the number of MFO foundings per country-year. The MIX groups MFOs into six categories according to their legal status: Banks, Non-Governmental Organizations (NGO), Non-Bank Financial Institutions (NBFI), Credit Unions, Rural Banks, and ‘Others’. Following past studies which treat organizations that provide microfinance services as MFOs regardless of their legal status (e.g., Armendariz and Morduch 2010; Cull, Demirguc-Kunt, and Morduch 2009; The Economist Intelligence Unit 2010), our variable does not distinguish between different types of MFOs. Based on the fact that MFO founding is a non-negative count variable, model estimation is with random effects negative binomial regression using a maximum likelihood estimation procedure. We chose the negative binomial approach over poisson regression because the distribution of our dependent variable shows evidence of over-dispersion (mean: 0.47; variance: 1.49). Also, since some of our independent variables exhibit

little variance over time, random-effects are preferred to fixed-effects in accounting for the cross-national structure of our data. We used the `xtbreg` command in STATA 11 for these models.

Still, we recognize that there are limitations when using founding rates as an indicator of development in a country's MFO sector. In particular, organizational consolidation and growth may lead to fewer – but larger – MFOs, potentially creating a discrepancy between the number of active MFOs and the number/amount of loans made in a country while also diminishing the additive influence of subsequent foundings (Hannan and Freeman 1989). To make sure that this wasn't an issue in our analysis, unreported models use the number of active borrowers and total amount of microfinance loans made per country-year as substitutes for foundings. Results accord with our reported findings.

Our second dependent variable is the proportion of women borrowers served per MFO-year. Given the use of a proportion as the dependent variable and the potential heteroskedasticity problems that this can create, we tested our hypotheses on women's lending using generalized linear models (GLM) to fit fractional probit panel-data estimations with robust standard errors (Hardin and Hilbe 2003; Papke and Wooldridge 1996). Unreported models using fractional logit estimates are consistent with the reported results.

Independent Variables

Neoliberal economic policies. To measure the degree to which a country had implemented neoliberal economic policies, we used data from the Heritage Foundation's *Index of Economic Freedom*. The Foundation actively promotes a free-market, neoliberal, ideology and constructs the Index each year to assess of the degree to which countries accord with its ideal of a strong judiciary, limited government economic intervention, minimal business regulation, and open

financial markets (Miller, Holmes, Feulner, Kim, Riles, Roberts, Foster, Anaraki, and Ezekwesili 2012). Constructed in tandem with the Wall Street Journal, the Index draws on statistics from the US Government, International Monetary Fund, World Bank, and The Economist Intelligence Unit. Ten individual measures are used to construct the Index: protection of property rights, corruption levels, tax rates, government spending, the level of business regulation, currency stability, unemployment levels, trade restrictions, national investment climate, and the transparency of equity markets. Each country is assigned a score between 1 and 100 on each dimension and these are averaged to create a composite index measure²: higher scores reflect stronger property rights, less corruption, more efficient regulatory frameworks, a favorable investment climate, and open markets – policy indicators that are linked with neoliberalism (Dobson and Hufbauer 2001) and have been shown to affect entrepreneurship in a country (Kelley, Singer, and Herrington 2012) and are assumed to affect microfinance as well (Ledgerwood 1999; The Economist Intelligence Unit 2010). Our specific variable is a country's logged economic freedom score. Also, while we attempted to tease out the influence of each individual economic freedom measure, we were unable to do so because of very high correlations.

Patriarchy. Although most studies measure institutional logics with a limited set of indicators or rough time and location proxies, we endeavored to follow insights about the cross-level influence of gender inequality (Ridgeway 2011) and identified a variety of social, political, and institutional factors that are related to the level of patriarchy in a nation³. To this end, we gathered data on women's roles as private-domestic (versus public-economic) actors as well as indicators of broad institutional arrangements that may marginalize women (Ridgeway 2011).

Measures of the former include pay inequities, reproductive freedom, professional training, and political representation. Data is from the United Nations Human Development Report (HDR) ⁴. We measured pay inequity according to a country's woman-to-man earned income ratio and reproductive freedom according to the percentage of married women ages 15-49 who, with their partners, were actively using contraception. Professional training reflects the proportion of women versus men employed in professional positions such as law, accounting, the physical sciences, life sciences, and engineering. Finally, political representation is the percentage of seats in the national parliament held by women. With regards to large scale institutional arrangements, we created a dummy variable tracking whether or not a country had ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). The CEDAW is often described as the international bill of rights for women; it clearly defines gender discrimination and sets an agenda for national action. Signatories are legally bound to implement its provisions and are required to submit yearly progress reports to the United Nations (un.org). Data for this variable is from the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women).

Also, based on evidence that patriarchy is embedded in the fundamentalist version of most major religions (Keister 2008; Lehrer 1995; Lehrer 1996), we gathered data on religious fundamentalism in each country from the Religion and State Project (RAS). RAS provides yearly statistics for 175 countries between 1990 and 2002: variables for each country are stable over time, so we extrapolated them to fill in values for 2003 through 2006. Our variable is a dummy created by RAS to indicate whether religion imposes restrictions on women, such as their education, jobs that they can hold, or their public appearance without a chaperone.

All of our variables are coded so that higher values reflect higher patriarchy. For instance, our variable for CEDAW ratification is set to ‘1’ for countries that have not ratified this treaty. We interacted economic freedom scores with each patriarchy variable to test hypotheses 5 and 6. We used mean centered variables to calculate interactions to help reduce the correlation between variables and their interaction terms (Jaccard and Turrisi 2003). Table 1 summarizes the sources of all independent and outcome variables, their operationalization, and hypothesized effects.

Insert Table 1 about here

Control Variables

We include a number of controls in our models. Countries with low national wealth, low education, and poor health care may have a high need for MFOs. We measure national wealth by GDP per capita (logged), health care by life expectancy and education level by adult literacy rate. However, we dropped life expectancy and adult literacy because they were highly correlated with GDP per capita. A disproportionately large rural population may also lead to high demand for MFOs, but this was also highly correlated with GDP per capita and dropped from our analyses. MFO foundings and women’s lending may also depend on other sources of funding available to rural poor. One important source of funding is Official Development Assistance (ODA), which comprises loans and grants made by donor government agencies to promote economic development and welfare in developing countries. Accordingly, all models control for ODA per capita (logged).

We also include the lagged number of national and regional MFO foundings in the past year to control for potential legitimating as well as competitive effects (Aldrich and Ruef 2006; Hannan and Freeman 1989). We classify countries into eleven regions: Africa, East Asia and the

Pacific, Eastern Europe and Central Asia, Latin America and The Caribbean, Middle East and North Africa, North America, Northern Europe, Oceania, South Asia, Southern Europe, and Western Europe, consistent with the approach taken by the MIX (Sapundzhieva 2011).

In addition, countries with different levels of democracy may be more or less receptive to microfinance. We controlled for this with a democracy score, ranging from 0 to 10, taken from the Polity IV Project's Political Regime Characteristics and Transitions database. Politically instable countries may represent a hostile environment for MFO founding but at the same time create a greater need for microfinance. Using data from the State Failure Problem dataset, we calculated political instability as an additive index of the average magnitude of four types of events: revolutionary wars, ethnic wars, adverse regime changes, and genocides. We also include region and year fixed dummies in all models, which help to capture any remaining unobserved regional and time effects.

Finally, we include four unique MFO-level controls in our women's lending models. Past research suggests that MFOs may sacrifice their outreach to poorer customers, particularly women borrowers, when they start to focus on financial sustainability (Cull, Demirguc-Kunt, and Morduch 2007; Mersland and Strom 2010). As such, we controlled for financial performance using a measure of operational self-sufficiency (OSS), calculated as operating revenue divided by the sum of financial expense, loan loss provision expense and operating expense (Armendariz and Morduch 2010). Further, different types of MFOs (non-profit vs. for-profit) may vary in their commitment to social versus financial performance (Frank 2008). As such, we control for an organization's legal status with a dummy variable set to '1' for non-profit MFOs. We also controlled for MFO age and size: age is the difference between the focal year and an MFO's founding year while size is the total number of employees (both logged). All independent and

control variables were lagged by one year and updated annually. We took natural log of certain variables because they are positively skewed.

RESULTS

Descriptive Statistics

Descriptive statistics are reported in tables A1 (founding rate models) and A2 (women's lending models) in the appendix. Tables A3 and A4 show that no correlations appear seriously high except for the interactions which are high by design. Still, as a formal diagnosis of collinearity, we calculated variance inflation factor (VIF) scores for all independent and control variables using STATA's COLLIN command: all values were below the threshold of 10 suggested by Kennedy (2008).

MFO Foundings

Table 2 presents our founding rate models. Model 1 includes control variables and economic freedom. Results show that GDP per capita is negatively and significantly associated with MFO founding and ODA per capita has a marginally significant negative impact. Therefore, high demand and a lack of alternative financial resources appear to trigger development in a nation's microfinance sector. Previous MFO foundings in a country are also a significant predictor of further foundings, but this effect is not significant for previous regional foundings. However, the coefficient for economic freedom is significant and positive, suggesting that the implementation of neoliberal economic policies contribute to the development of a country's MFO sector.

Therefore, hypothesis 1 is supported.

Patriarchy variables are introduced in models 2-5, testing their individual and collective effects. Overall, we find strong support for hypothesis 3. Other than the insignificant effect of earned income, and political representation by women and absence of CEDAW ratification – which are in the predicted direction, but not significant – each of our patriarchy measures is negatively associated with MFO founding rates. Model 6 is a full model with all variables included. The signs and significance of our variables are largely unchanged, except that religious fundamentalism turns insignificant and CEDAW turns marginally significant. Notably, the coefficient for economic freedom loses significance. Three reasons might explain these changes: first, all these changes should be interpreted with the caveat that the sample size for estimating the full sample is reduced significantly due to missing data in our professional training variable. Second, the effect of religious beliefs may be reflected in gendered professional roles and power over birth control (Keister 2005). Third, the non-significance for economic freedom indicates that cultural resistance to microfinance ingrained in patriarchy may override economic policies that support MFO foundings.

Insert Table 2 about here

To further investigate the third possibility, table 3 shows how economic freedom and patriarchy interact to affect MFO foundings. Although interaction terms generally show a positive effect on MFO founding, none of the coefficients are significant. Thus, while neoliberal policies are independently conducive to MFO foundings, it appears they are insufficient to overcome deeply ingrained cultural barriers. Therefore, we fail to support hypothesis 5.

Insert Table 3 about here

Women's Lending

Table 4 presents the results of our models for women's lending. In model 1, we include all control variables plus economic freedom. ODA per capita is negatively and significantly associated with the proportion of women borrowers, suggesting that MFOs in countries where there are alternative financial resources focus less on women borrowers. Past national foundings and higher level of democracy both appear to have a positive influence on lending to women. Results also mirror previous findings in showing that non-profit MFOs serve a higher proportion of women borrowers than for-profit ones (Frank 2008). As predicted by hypothesis 2, economic freedom significantly decreases the proportion of women borrowers served by MFOs, supporting our argument that neoliberal economic policies can have the unfortunate consequence of leading MFOs away from their social mission.

As with our founding-rate analysis, we progressively introduce patriarchy variables in table 4, models 2-5. Overall, we find substantial support for hypothesis 4. Each measure of patriarchy significantly suppresses the proportion of women borrowers served by MFOs except women's political representation. Although it is puzzling that a higher proportion of male legislators in a country would positively affect women's lending, it is not entirely inconsistent with past findings that female legislators do not always promote women's interests when in power (Reynolds 1999; Tremblay 1998). Thus, while further research is needed, our results support the view that women's political presence may be a matter of "window dressing," where a high degree of representation and long tenure in office do not translate into policy outcomes.

Additionally, two results in the full model (6) are worth discussing. First, the coefficient for religious fundamentalism turns marginally positive: this may owe to the reduced sample size in the full model caused by the inclusion of our professional training variable. Second, the effect

of economic freedom remains negative and significant even after controlling for all patriarchy variables. Combined with the results from our founding-rate models, this suggests that while patriarchy may override the positive effect of neoliberal policies on MFO foundings, both factors have an independent and negative influence on women’s lending.

Insert Table 4 about here

Table 5 shows how patriarchy and pro-business economic conditions interact to affect lending to women. We observe significant interactions between economic freedom and religious fundamentalism, contraceptive use, political representation, and lack of CEDAW ratification. Interactions between economic freedom and pay inequity and professional training are not significant, though this is not surprising given the missing data on the second. Thus, we support hypothesis 6, suggesting that economic conditions which favor MFO foundings amplify the suppression of women’s lending in countries with a strong patriarchal logic, further undermining outreach to women in the countries where it is needed the most.

Insert Table 5 about here

SUPPLEMENTARY ANALYSES

To further probe the mechanisms responsible for the suppression of women’s lending, we constructed supplementary models examining the degree to which this effect was driven by adaptation – where extant MFOs move away from their social mission – or replacement – where for-profit MFOs (which typically make fewer loans to women) are disproportionately represented in founding rates. We tested these explanations by examining the cross-form (non-profit vs. for-profit MFOs) differences in the effects of economic freedom and patriarchy on

MFO foundings and women's lending. In the founding analyses, we estimated differential effects using a Chow test based on a pooled sample of founding data for both types of organizations (Gould 2011). This is equivalent to stacking founding data on non-profit and for-profit MFOs as one single outcome variable and including all relevant variables as well as the interactions between the non-profit form dummy with those variables as covariates.

Results in table A5 indeed show that economic freedom fosters the emergence of for-profit MFOs more readily than non-profit MFOs, thus contributing to the suppression of women's lending by supporting the emergence of organizations that have a weaker focus on social mission. There is also some weak evidence that patriarchy constrains the founding of non-profit MFOs less than it does for-profit MFOs. We applied a similar approach to testing cross-form differences for women's lending. We find that economic freedom reduces the proportion of women borrowers more for non-profit MFOs than for for-profit ones as shown in table A6. While this is likely due to the fact that for-profit MFOs are already less focused on women's lending, it also suggests that even non-profit MFOs tend to drift away from their social mission when faced with an economic climate that rewards financial sustainability. There is also some evidence that patriarchy reduces the proportion of women borrowers more for for-profit MFOs than for non-profit ones. As such, results suggest that adaptation and replacement mechanisms both contribute to the suppression of women's lending in a country. Neoliberal policies disproportionately favor the founding of for-profit MFOs and suppress the level of women's lending among non-profit MFOs, while patriarchy leads for-profit MFOs to make even fewer loans to women. The results also indicate that although non-profit and for-profit MFOs incarnate distinct values and missions, economic and cultural influences shape both types of organizations.

DISCUSSION AND CONCLUSION

In this paper, we investigated the independent and joint influence of economic and cultural factors on the likelihood that MFOs will be founded and lend to women in a country. Consistent with our predictions, we found that a strong patriarchal logic was associated with lower rates of MFO foundings and women's lending, while neoliberal economic policies contributed to foundings, but suppressed women's lending. Supplementary models showed that this result was due to an increase in the founding of for-profit MFOs – which make fewer loans to women – as well as mission drift among non-profit MFOs which are supposed to have a stronger commitment to their social mission. As such, our results suggest that it is important to consider both sets of factors when examining a nation's microfinance sector. Moreover, it appears that arguments which advocate for neoliberal economic reform as a means to expand the reach and benefits of microfinance have important limitations and may even be misguided and harmful (Cull, Demirguc-Kunt, and Morduch 2009; gphi.org ; Ledgerwood 1999; The Economist Intelligence Unit 2010). Indeed, we found that not only do these policies undermine outreach to women, but that their detrimental influence is magnified in patriarchal countries where the need for women's lending is most acute. In essence, when patriarchy is high, neoliberal market reforms may lead to more MFOs, but doing less good with regards to serving this important piece of their social mission.

Our findings are of interest to scholars who study microfinance, organization theory, patriarchy, and neoliberalism. With regard to microfinance, we contribute insight into the sources of cross-national variation in founding rates and women's lending. We show that patriarchy represents a considerable, but previously unaddressed, barrier to the development of microfinance and its commitment to social outreach. In addition, while studies have suggested

that MFOs may drift away from their social mission in an effort to become more financially self-sufficient (Battilana and Dorado 2010; Frank 2008), we show that macro-economic factors significantly enable this. As such, our findings complement earlier studies that have examined the impact of microfinance on poverty alleviation and women's empowerment in narrower contexts. Our cross-national approach is particularly useful in this regard because it may help to resolve some of the contradictory findings presented in these studies (Armendariz and Morduch 2010). Indeed, the heterogeneous economic and cultural environments faced by different MFOs may significantly imprint their efficacy in addressing social issues, leading to different outcomes in different contexts. This insight also has potentially important policy implications.

In recent years, there has been a significant shift toward commercial microfinance, buoyed by the rhetoric that financially sustainable MFOs have the promise to expand the scope of microfinance lending, generate financial returns, and address poverty: a win-win scenario where free markets contribute to social benefits (see Armendariz and Morduch 2010). Indeed, the current policy thrust of transnational organizations including the G20, International Monetary Fund, and World Bank is to promote microfinance development through economic channels (Cull, Demirguc-Kunt, and Morduch 2009; gpi.org ; The Economist Intelligence Unit 2010). Our results cast doubt on the efficacy of this approach. In particular, we suggest that unless concurrent efforts are made to address the cultural sources of inequality and poverty in a nation, economic policies will have limited benefits and may perpetuate underlying cycles of domination and subjugation. As such, our findings support the position taken by advocates such as Muhammad Yunus (2011) who envision governments playing an active role in guiding the development of their country's microfinance sector. To the extent that lending to women is

indeed a tractable means to address poverty, policy makers need to recognize that serving this population may not be profitable and thus should not be left to market forces alone.

In this way, our findings also contribute to ongoing discussions about neoliberalism and its effects around the world (Babb 2005; Campbell 2010; Davis 2009). Notably, though, while there is a long-standing interest in understanding the ways that national culture creates variation in the adoption and implementation of neoliberal policies among nations (Campbell and Pedersen 2001; Henisz, Zelner, and Guillen 2005; Prasad 2005), ours is the first study that we know of which shows that the effects of these policies, once implemented, may vary with cultural factors. In this way, our approach points to a potential bridge between studies examining the global spread of economic ideologies like neoliberalism (Campbell and Pedersen 2001; Meyer, Boli, Thomas, and Ramirez 1997; Meyer and Strang 1993; Simmons, Dobbin, and Garrett 2007) and studies in economic sociology that focuses on the embeddedness of market processes (Carruthers 1996; Dobbin 1994; Whitley 1992). While our approach focused on the interaction between neoliberal policies and patriarchy, we anticipate that future studies will probe the cultural embeddedness of such policies more directly, thoroughly, and across a broader range of outcomes than we do here.

Our study also has implications for organizational research on entrepreneurship, and international entrepreneurship in particular. Specifically, we offer a sociological corrective to extant studies in international entrepreneurship that have focused primarily on economic factors and rates of overall business creation among nations (Kelley, Singer, and Herrington 2012; Zahra and George 2002). In this regard, we reaffirm that founding rates for certain types of businesses are affected by cultural factors (Biggart and Guillen 1999). Thus, while economic explanations offer insight into broad patterns of cross-national entrepreneurship, our approach suggests that

these effects do not apply equally to different types of organizations. Thus, overall entrepreneurship rates likely mask important variation in the types of businesses and types of entrepreneurs that are considered legitimate in a country. As such, we add important nuance to the international entrepreneurship literature while extending insights from organizational sociology and gender studies to a potentially productive domain.

In addition, our findings have implications for research on women's entrepreneurship. To date, studies in this milieu have concentrated on identifying micro factors associated with the scarcity of female entrepreneurs and the marginalization of women in venture teams (Aldrich and Cliff 2003; Aldrich and Yang 2012; Bird and Sapp 2004). In this regard, studies have suggested that lower rates of entrepreneurship among women are driven by both psychological and resource factors. Fear of failure and negative self-perception may make women more conservative in acquiring capital and in their decision to participate in entrepreneurial activities (Jennings and Provorny Cash 2006). Women may also lack access to entrepreneurial training and social networks (Wagner 2007). Beyond these constraints, our results suggest that the lack of women-led ventures may be related to patriarchy and its suppression of a supportive organizational infrastructure for women's entrepreneurship.

Finally, our approach shows that the intersection of insights from the literatures on patriarchy and organizational institutionalism may open new terrain for each. With regards to the first, we contribute to a broader conceptualization of the relationship between patriarchy, women, and organizations. Unlike studies which focus the ways that patriarchy marginalizes women *within* organizations (Reskin and McBrier 2000; Smith 2002), we suggest that it is also important to understand how patriarchy affects women *through* organizations. By using organizations and their practices as our primary outcome measure, we add to macro-level studies

of gender inequality and highlight the potential for large-scale institutional arrangements to indirectly marginalize women by erecting barriers to the emergence and operation of organizations that promote their empowerment (Clemens 1997).

Integrating insights from gender studies also has a number of implications for the conceptualization and use of institutional logics in organizational sociology. In this regard, we direct attention to the suppressing effects of logics. Although the ability for logics to both enable and constrain has long been recognized (Biggart and Guillen 1999; Thornton and Ocasio 1999; Thornton, Ocasio, and Lounsbury 2012), studies to date have concentrated almost uniformly on the former. While efforts in this direction have surfaced a number of insights about the role of shared belief systems in fostering the emergence of certain types of organizations (Haveman and Rao 1997; Rao, Monin, and Durand 2003; Sine and Lee 2009; Weber, Heinze, and DeSoucey 2008), it has elided deeper consideration of the ways in which logics suppress their challengers. Indeed, even studies which examine ‘institutional entrepreneurs’ – actors who try to change prevailing logics (DiMaggio 1988) – focus primarily on factors associated with successful change efforts (Lounsbury and Crumley 2007). Accordingly, we have little understanding of how actors and organizations are shaped through their efforts to challenge entrenched logics. In this regard, sociological research on patriarchy provides a useful complement because it focuses directly on cultural sources of suppression and marginalization. As such, our approach contributes to a more well-rounded view that recognizes the potential for logics to create barriers to the emergence of challenging organizations while pushing those that overcome these barriers toward a more conforming position. This stands in distinction to typical accounts of open conflict and contestation that accompany efforts at institutional change (Thornton, Ocasio, and Lounsbury 2012).

Finally, the literature on gender inequality reinforces the utility of attending to the multi-level influence of logics. Indeed, in their recent update of the logics perspective, Thornton and colleagues (2012) stress the importance of studying both micro and macro influences. Our study affirms the value of this approach: looking across levels helped us to theorize the links between patriarchy and microfinance and sensitized us to look for multiple empirical indicators.

Limitations

Our analysis is limited in two primary ways. First, although our sample represents the most significant MFOs in the world, estimation is conducted only on a portion of the whole population. Thus, our results should be interpreted with this general data limitation in mind. Related to this, we were unable to model founding rates and women's lending in the sector's incipient years because data for key variables were not available until 1995. However, while it is likely that some results will vary in the pre-1995 period, we do not expect that this will change our overall findings. In the early emergence of global microfinance, economic freedom may not have been a strong predictor of foundings and patriarchy may have had a stronger suppressing effect due to the general lack of legitimacy faced by new types of organizations (Aldrich and Fiol 1994; Wry, Lounsbury, and Glynn 2011). The effect of patriarchy on women's lending may also have been stronger – evidence suggests that early MFOs such as Grameen Bank had to slowly build a portfolio of women borrowers (Armendariz and Morduch 2010; Yunus 1999) – while economic freedom was likely less relevant considering that institutional investments in microfinance were rare until the early 1990's, as were for-profit MFOs (Sapundzhieva 2011).

Second, because of the nature of our study, we chose to conceptualize and assess the impact of macro-level variables across a large sample of countries over twelve years. As with

other studies of cross-national phenomenon, our approach emphasizes generality over detail and empirical measures are relatively coarse indicators of the underlying mechanisms at work (Henisz, Zelner, and Guillen 2005: 893). Thus, while there are logical theoretical explanations for why we would expect neoliberal policies and patriarchy to influence microfinance in the ways that we observe, our analytic approach forces us to infer these effects rather than observe them directly. More in-depth case studies would add valuable nuance to our findings and better capture those underlying dynamics. In addition to more deeply probing the tripartite relationship between economics, culture, and microfinance, such work may help to illuminate how organizations interpret and respond to these pressures (Battilana and Dorado 2010) and, more importantly, how some sustain a focus on women's lending in hostile environs.

Conclusion

Our study brings a sociological perspective to the study of global microfinance. By drawing attention to the women's empowerment mission of MFOs, we leveraged insight about the potential for gender inequality to function as an institutional logic that consequentially shapes a nation's microfinance sector. Further, we show that extant theoretical arguments and policy initiatives which attempt to expand the reach and benefits of microfinance through neoliberal economic reforms have limited potential. Rather than catalyzing development and outreach, these policies may create inducements for MFOs to move away from their focus on women's lending, particularly in patriarchal countries where the need for such loans is the greatest. As such, we highlight the importance of attending to both economic and cultural explanations for the dynamics of organizational populations across nations and the need to address deep-seated cultural sources of inequality with non-market instruments.

NOTES

1. Although studies typically invoke logics to understand the dynamics of industries and organizational fields, the approach also applies to the study of geographic regions and nations (see Thornton et al. 2012 for a discussion and review)
2. See heritage.org for a detailed discussion of the data and methodology used to construct and score each measure.
3. Although there are index variables that measure patriarchy – such as the Gender Empowerment Measure (GEM) created by the United Nations Development Program (UNDP) – we chose not to use these based on critiques that they incompletely reflect the various aspects of gender inequity in a country (Betata 2007).
4. The HDR data is rich, but there are some holes in the records and not every variable is updated annually. Following the lead of earlier researchers (e.g., Carroll and Huo 1986; Haveman and Rao 1997), we interpolated missing data of these variables for each country (missing due to gaps in the records) by regressing them against time. We used STATA's `ipolate` procedure to perform this linear interpolation.

REFERENCES

- Acker, Joan. 2006. "Inequality regimes: Gender, class, and race in organizations." *Gender & Society* 20:441-464.
- Aldrich, H. E. and C. M. Fiol. 1994. "Fools Rush in: The Institutional Context of Industry Creation." *Academy of Management Review* 19:645-670.
- Aldrich, Howard E. and Jennifer E. Cliff. 2003. "The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective." *Journal of Business Venturing* 18:573-596.
- Aldrich, Howard E. and Tiantian Yang. 2012. "Status categorization and role stereotyping: Institutionalized gender inequality in entrepreneurial teams." *Working Paper*.
- Aldrich, Howard and Martin Ruef. 2006. *Organizations evolving*. Thousand Oaks, CA: Sage Publications.
- Alfaro, Laura, Areendam Chanda, Sebnem Kalemli-Ozcan, and Selin Sayek. 2010. "Does foreign direct investment promote growth? Exploring the role of financial markets on linkages." *Journal of Development Economics* 91:242-256.
- Anthony, D. 2005. "Cooperation in microcredit borrowing groups: Identity, sanctions, and reciprocity in the production of collective goods." *American Sociological Review* 70:496-515.
- Armendariz, Beatriz and Jonathan Morduch. 2010. *The Economics of Microfinance*. Cambridge, MA: MIT Press.
- Armendariz, Beatriz and Nigel Roome. 2008. "Gender empowerment in microfinance." in *Microfinance: Emerging trends and challenges*, edited by S. M. Sundaresan. Cheltenham: Edward Elgar Publishing Limited.
- Babb, Sarah. 2005. "The social consequences of structural adjustment: Recent evidence and current debates." *Annual Review of Sociology* 31:199-222.
- Balasubramanyam, V. N., M. Salisu, and D. Sapsford. 1996. "Foreign direct investment and growth in EP and IS countries." *The Economic Journal* 106:92-105.
- Battilana, Julie and Silvia Dorado. 2010. "Building Sustainable Hybrid Organizations: The Case of Commercial Microfinance Organizations." *Academy of Management Journal* 53:1419-1440.
- Beck, Thorsten, Patrick Behr, and Andre Guttler. 2009. "Are women better loan officers?" *Working Paper*.
- Bendroth, Margaret Lamberts. 1999. "Fundamentalism and the family: Gender, culture, and the american pro-family movement." *Journal of Women's History* 10:35-54.
- Betata, H. C. 2007. "What is missing in measures of women's empowerment?" *Journal of Human Development* 7:221-241.
- Bhatt, N. and S. Y. Tang. 1998. "The problem of transaction costs in group-based microlending: An institutional perspective." *World Development* 26:623-637.
- Biggart, N. W. and M. F. Guillen. 1999. "Developing difference: Social organization and the rise of the auto industries of South Korea, Taiwan, Spain, and Argentina." *American Sociological Review* 64:722-747.
- Bird, Sharon R. and Stephen G. Sapp. 2004. "Understanding the gender gap in small business success: Urban and rural comparisons." *Gender & Society* 18:5-28.
- Blumberg, Rae. 1989. "Toward a feminist theory of development." in *Feminism and sociological theory*, edited by R. Wallace. Beverly Hills, CA: Sage.

- Busenitz, L. W., C. Gomez, and J. W. Spencer. 2000. "Country institutional profiles: Unlocking entrepreneurial phenomena." *Academy of Management Journal* 43:994-1003.
- Calas, M. B., L. Smircich, and K. A. Bourne. 2009. "Extending the Boundaries: Reframing "Entrepreneurship as Social Change" through Feminist Perspectives." *Academy of Management Review* 34:552-569.
- Campbell, John L. 2010. "Neoliberalism in Crisis: Regulatory roots of the U.S. financial meltdown." *Research in the Sociology of Organizations* 30B:65-101.
- Campbell, John L. and Ove K. Pedersen. 2001. *The rise of neoliberalism and institutional analysis*. Princeton, NJ: Princeton University Press.
- Carroll, Glenn R. and Yangchung Paul Huo. 1986. "Organizational task and institutional environments in evolutionary perspective: Findings from the local newspaper industry." *American Journal of Sociology* 91:838-873.
- Carruthers, Bruce G. 1996. *City of capital: Politics and markets in the English financial revolution*. Princeton, NJ: Princeton University Press.
- Charles, Maria and David B. Grusky. 2004. *Occupational ghettos: The worldwide segregation of women and men*. Stanford, Calif.: Stanford University Press.
- Clemens, Elisabeth Stephanie. 1997. *The people's lobby: Organizational innovation and the rise of interest group politics in the United States, 1890-1925*. Chicago: University of Chicago Press.
- Correll, Shelley J. 2004. "Constraints into preferences: Gender, status, and emerging career aspirations." *American Sociological Review* 69:93-113.
- Cull, R., A. Demirguc-Kunt, and J. Morduch. 2007. "Financial performance and outreach: A global analysis of leading microbanks." *Economic Journal* 117:F107-F133.
- . 2009. "Microfinance Meets the Market." *Journal of Economic Perspectives* 23:167-192.
- Daley-Harris, Sam. 2009. "State of the Microcredit Summit Campaign Report 2009." Microcredit Summit, Washington.
- Davis, Gerald F. 2009. *Managed by the Markets: How finance has re-shaped America*. New York: Oxford University Press.
- Delacroix, Jacques and Glenn R. Carroll. 1983. "Organizational foundings: An ecological study of the newspaper industries of Argentina and Ireland." *Administrative Science Quarterly* 28:274-291.
- DeVault, Marjorie L. 1991. *Liberating method: Feminism and social research*. Philadelphia: Temple University Press.
- DiMaggio, Paul J. 1988. "Interest and agency in institutional theory." Pp. 3-22 in *Institutional patterns and organizations: Culture and environment*, edited by L. G. Zucker. Cambridge, MA: Ballinger.
- Dobbin, Frank. 1994. *Forging industrial policy: The United States, Britain, and France in the railway age*. New York, NY: Cambridge University Press.
- Dobson, W. and G. Hufbauer. 2001. *World capital markets: Challenges to the G-10*. Washington, DC: Institute for International Economics.
- Eagly, Alice H. and Linda L. Carli. 2007. *Through the labyrinth: The truth about how women become leaders*. Boston, MA: Harvard Business School Press.
- Epstein, Cynthia Fuchs. 1988. *Deceptive distinctions: Sex, gender, and the social order*. New Haven: Yale University Press.
- Faraizi, Aminul, Taskinur Rahman, and Jim McAllister. 2011. *Microcredit and women's empowerment: A case study of Bangladesh*. Routledge.

- Fligstein, Neil and Taekjin Shin. 2007. "Shareholder value and the transformation of the U.S. economy, 1984-2000." *Sociological Forum* 22:399-424.
- Frank, Christina. 2008. "Stemming the tide of mission drift: Microfinance transformation and the double bottom line." Women's World Banking Focus Note.
- Gould, William. 2011. "Can you explain Chow tests?": Retrieved May 26, 2012 (<http://www.stata.com/support/faqs/statistics/chow-tests/>).
- gpfi.org. "gpfi.org, Retrieved May 26, 2012."
- Grown, Caren and Geeta Rao Gupta. 2005. *Taking action: Achieving gender equality and empowering women*. London: The United Nations Development Programme.
- Hannan, Michael T. and John Freeman. 1989. *Organizational ecology*. Cambridge, Mass.: Harvard University Press.
- Hardin, James W. and Joseph Hilbe. 2003. *Generalized estimating equations*. Boca Raton, Fla.: Chapman & Hall/CRC.
- Hashmi, T. I. 2000. *Women and islam in Bangladesh*. Hampshire & London: Macmillan Press Limited.
- Haveman, H. A. and H. Rao. 1997. "Structuring a theory of moral sentiments: Institutional and organizational coevolution in the early thrift industry." *American Journal of Sociology* 102:1606-1651.
- Henisz, W. J., B. A. Zelner, and M. F. Guillen. 2005. "The worldwide diffusion of market-oriented infrastructure reform, 1977-1999." *American Sociological Review* 70:871-897.
- Hughes, K. D. 2003. "Pushed or pulled? Women's entry into self-employment and small business ownership." *Gender Work and Organization* 10:433-454.
- Iskenderian, Mary Ellen. 2011. "Women's World Banking: Annual Report, 2011." Women's World Banking. http://www.swwb.org/sites/default/files/pubs/en/wwb_2011_annual_report.pdf.
- Jaccard, James and Robert Turrisi. 2003. *Interaction effects in multiple regression*. Thousand Oaks, CA: Sage Publications.
- Jennings, J. E. and M. Provorny Cash. 2006. "Women's entrepreneurship in Canada: Progress, puzzles and priorities." Pp. 53-87 in *Growth oriented women entrepreneurs and their businesses: A global research perspective*, edited by C. G. Brush, N. M. Carter, E. J. Gatewood, P. G. Greene, and M. M. Hart. Cheltenham: Edward Elgar Publishing Limited.
- Johnson, S. 2000. "Gender impact assessment in microfinance and microenterprise: Why and how?" *Development in Practice* 10:89-93.
- Kabeer, N. 1998. "'Money can't buy me love'? Re-evaluating gender, credit and empowerment in rural Bangladesh." in *Discussion Paper*: Institute of Development Studies, University of Sussex.
- Kaplinsky, Raphael. 2001. "Globalisation and economic insecurity." *IDS Bulletin* 32:13-24.
- Karim, Lamia. 2011. *Microfinance and its discontents: Women in debt in Bangladesh*. Minneapolis: University of Minnesota Press.
- Karlan, Dean and Martin Valdivia. 2010. "Teaching entrepreneurship: Impact of business training on microfinance clients and institutions." *Review of Economics and Statistics* Accepted for publication.
- Keister, L. A. 2008. "Conservative protestants and wealth: How religion perpetuates asset poverty." *American Journal of Sociology* 113:1237-1271.
- Keister, Lisa A. 2005. *Getting rich : America's new rich and how they got that way*. Cambridge, UK ; New York, NY: Cambridge University Press.

- Kelley, Donna J., Slavica Singer, and Michael D. Herrington. 2012. "The Global Entrepreneurship Monitor 2011 Global Report." Global Entrepreneurship Monitor.
- Kennedy, Peter. 2008. *A guide to econometrics*. Malden, MA: Blackwell Pub.
- Kevane, Michael and Bruce Wydick. 2001. "Microenterprise lending to female entrepreneurs: Sacrificing economic growth for poverty alleviation." *World Development* 29:1225-1236.
- Khandker, Shahidur R., Baqui Khalily, and Zahed Khan. 1995. *Grameen bank: Performance and sustainability*. Washington D.C.: The World Bank.
- Laffont, Jean Jacques and Patrick Rey. 2003. "Moral hazard, collusion and group lending." IDEI Working Paper 112.
- Leach, Fiona and Shashikala Sitaram. 2002. "Microfinance and women's empowerment: A lesson from India." *Development in Practice* 12:575-588.
- Ledgerwood, Joanna. 1999. *Microfinance handbook: An institutional and financial perspective*. Washington D.C.: The World Bank.
- Lehrer, E. L. 1995. "The Effects of Religion on the Labor Supply of Married Women." *Social Science Research* 24:281-301.
- . 1996. "Religion as a determinant of marital fertility." *Journal of Population Economics* 9:173-196.
- Lounsbury, M. 2007. "A tale of two cities: Competing logics and practice variation in the professionalizing of mutual funds." *Academy of Management Journal* 50:289-307.
- Lounsbury, M. and E. T. Crumley. 2007. "New practice creation: An institutional perspective on innovation." *Organization Studies* 28:993-1012.
- Lounsbury, M. and M. A. Glynn. 2001. "Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources." *Strategic Management Journal* 22:545-564.
- Margolis, J. D. and J. P. Walsh. 2003. "Misery loves companies: Rethinking social initiatives by business." *Administrative Science Quarterly* 48:268-305.
- Marquis, C. and M. Lounsbury. 2007. "Vive la resistance: Competing logics and the consolidation of US community banking." *Academy of Management Journal* 50:799-820.
- Mayoux, Linda. 1999. "Questioning virtuous spirals: Micro-finance and women's empowerment in Africa." *Journal of International Development* 11:957-984.
- Mersland, Roy and R. Oystein Strom. 2010. "Microfinance mission drift?" *World Development* 38:28-36.
- Meyer, John W., John Boli, George M. Thomas, and Francisco O. Ramirez. 1997. "World society and the nation-state." *American Journal of Sociology* 103:144-181.
- Meyer, John W. and David Strang. 1993. "Institutional conditions for diffusion." *Theory and Society* 22:487-511.
- Miller, Terry, Kim Holmes, Edwin Feulner, Anthony Kim, Bryan Riles, James Roberts, JD Foster, Nahid Anaraki, and Obigeli Ezekwesili. 2012. "Index of Economic Freedom." The Heritage Foundation and The Wall Street Journal.
<http://www.heritage.org/index/download>.
- Papke, L. E. and J. M. Wooldridge. 1996. "Econometric methods for fractional response variables with an application to 401(k) plan participation rates." *Journal of Applied Econometrics* 11:619-632.
- Pfeffer, Jeffrey and Gerald R. Salancik. 1978. *The external control of organizations: a resource dependence perspective*. New York: Harper & Row.
- Prasad, Monica. 2005. "Why is France so French? Culture, institutions, and neoliberalism, 1974-1981." *American Journal of Sociology* 111:357-407.

- Rahman, A. 2001. *Women and microcredit in rural Bangladesh: An anthropological study of Grameen Bank lending*. Boulder, CO: Westview Press.
- Rahman, Mizanur and Julie DaVanzo. 1997. "Influence of the Grameen Bank on contraceptive use in Bangladesh." in *Population Council Workshop on Measuring the Impact of Microcredit Programs on Fertility*. New York.
- Rankin, Katherine N. 2002. "Social capital, microfinance, and the politics of development." *Feminist Economics* 8:1-24.
- Rao, H., P. Monin, and R. Durand. 2003. "Institutional change in Toque Ville: Nouvelle cuisine as an identity movement in French gastronomy." *American Journal of Sociology* 108:795-843.
- Rastin, Taymaz. 2003. "Model for development: A case study of Singapore's economic growth." *Critique* Fall:1-10.
- Reskin, Barbara F. and Debra Branch McBrier. 2000. "Why not ascription? Organizations' employment of male and female managers." *American Sociological Review* 65:210-233.
- Reynolds, A. 1999. "Women in the legislatures and executives of the world: Knocking at the highest glass ceiling." *World Politics* 51:547-+.
- Ridgeway, Cecilia L. 2011. *Framed by gender: How gender inequality persists in the modern world*. New York: Oxford University Press.
- Ridgeway, Cecilia L. and Lynn Smith-Lovin. 1999. "The gender system and interaction." *Annual Review of Sociology* 25:191-216.
- Robinson, Marguerite S. 2001. *The microfinance revolution: Sustainable finance for the poor*. Washington, D.C.: The World Bank.
- Rutherford, Stuart. 2009. *The pledge: ASA, peasant politics, and microfinance in the development of Bangladesh*. New York: Oxford University Press.
- Sanyal, P. 2009. "From Credit to Collective Action: The Role of Microfinance in Promoting Women's Social Capital and Normative Influence." *American Sociological Review* 74:529-550.
- Sapundzhieva, Ralitsa. 2011. "Funding microfinance - a focus on debt financing." *Microfinance Bulletin* November:1-8.
- Schuler, Sidney Ruth, Syed M. Hashemi, and Shamsul Huda Badal. 1998. "Men's violence against women in rural Bangladesh: Undermined or exacerbated by microcredit programmes?" *Development in Practice* 8:148-157.
- Simmons, Beth A., Frank Dobbin, and Geoffrey Garrett. 2007. "The diffusion of public policies: Social construction, coercion, competition or learning?" *Annual Review of Sociology* 33:449-472.
- Sine, W. D. and B. H. Lee. 2009. "Tilting at Windmills? The Environmental Movement and the Emergence of the US Wind Energy Sector." *Administrative Science Quarterly* 54:123-155.
- Smith, Ryan A. 2002. "Race, gender, and authority in the workplace: Theory and research." *Annual Review of Sociology* 28:509-542.
- Suchman, Mark C. 1995. "Managing Legitimacy: Strategic and Institutional Approaches." *Academy of Management Review* 20:571-610.
- Swain, Ranjula Bali and Fan Yang Wallentin. 2009. "Does microfinance empower women? Evidence from self-help groups in India." *International Review of Applied Economics* 23:541-556.

- Tam, T. 1997. "Sex segregation and occupational gender inequality in the U.S.: Devaluation or specialized training?" *American Journal of Sociology* 102:1652-1692.
- The Economist Intelligence Unit. 2010. "Global microscope on the microfinance business environment 2010." Economist Intelligence Unit.
- The World Bank. March 2010. "Poverty Briefs."
- Thornton, P. H. and W. Ocasio. 1999. "Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958-1990." *American Journal of Sociology* 105:801-843.
- Thornton, P. H., W. Ocasio, and M. Lounsbury. 2012. *The institutional logics perspective: A new approach to culture, structure and process*. Oxford, UK: Oxford University Press.
- Tremblay, Manon. 1998. "Do female MPs substantively represent women? A study of legislative behavior in Canada's 35th parliament." *Canadian Journal of Political Science* 31:435-465.
- Wagner, J. 2007. "What a difference a Y makes-female and male nascent entrepreneurs in Germany." *Small Business Economics* 28:1-21.
- Weber, K., K. L. Heinze, and M. DeSoucey. 2008. "Forage for Thought: Mobilizing Codes in the Movement for Grass-fed Meat and Dairy Products." *Administrative Science Quarterly* 53:529-567.
- Weber, Klaus, Gerald F. Davis, and Michael Lounsbury. 2009. "Policy as myth and ceremony? The global spread of stock exchanges, 1980-2005." *Academy of Management Journal* 52:1319-1347.
- Weber, Klaus, Hayagreeva Rao, and L. G. Thomas. 2009. "From streets to suits: How the anti-biotech movement affected German pharmaceutical firms." *American Sociological Review* 74:106-127.
- Whitley, R. D. 1992. *Business systems in East Asia: Firms, markets and societies*. London: Sage.
- Witz, Anne. 1992. *Professions and patriarchy*. New York, NY: Routledge.
- Wry, T., M. Lounsbury, and M. A. Glynn. 2011. "Legitimizing Nascent Collective Identities: Coordinating Cultural Entrepreneurship." *Organization Science* 22:449-463.
- Yunus, Muhammad. 1999. *Banker to the poor: Micro-lending and the battle against world poverty*. New York: PublicAffairs.
- Yunus, Muhammad 2011. *Building social business: The new kind of capitalism that serves humanity's most pressing needs*. New York: PublicAffairs.
- Zacarias, Cecille and Sandra Togonon. 2007. "Building Human Resources Capacity: Developing Competencies for Microfinance Institutions. ." Womens World Banking. <http://www.swwb.org/publications/building-human-resources-capacity-developing-competencies-microfinance-institutions>.
- Zahra, S. A. and G. George. 2002. "International entrepreneurship: Research contributions and future directions." Pp. 255-258 in *Strategic entrepreneurship: Entrepreneurial strategies for wealth creation*, edited by M. Hitt, D. Ireland, M. Camp, and D. Sexton. New York: Blackwell.
- Zimmerman, Monica A. and Gerald J. Zeitz. 2002. "Beyond survival: Achieving new venture growth by building legitimacy." *Academy of Management Review* 27:414-431.

Table 1. Sources, Operationalization and Expected Sign of Key Variables

Key Constructs	Operationalization	Data Source	Founding Analyses	Women's Lending Analyses
MFO founding	The number of MFOs established per country-year	MIX		
Women's lending	The proportion of women borrowers per MFO-year	MIX		
Neoliberal economic policies	The index of economic freedom	Heritage Foundation	+	-
Patriarchy*	Religious fundamentalism: dummy indicating religious restriction on women's conduct	RAS	-	-
	Profession: proportion of women professionals	HDR	-	-
	Earned income: women to men earned income ratio	HDR	-	-
	Contraception: contraceptive prevalence rate	HDR	-	-
	Parliament seats: women's share of parliament seats	HDR	-	-
	CEDAW: dummy indicating the ratification status of CEDAW	UN Women	-	-
Interactions	Interaction terms between economic freedom and each patriarchy variable		+	-

* All patriarchy variables are coded with higher values indicating higher patriarchy

Table 2. Negative Binomial Models Predicting MFO Founding

	(1)	(2)	(3)	(4)	(5)	(6)
Real GDP per capita	-0.89** (0.14)	-0.89** (0.14)	-1.06** (0.23)	-1.06** (0.17)	-0.89** (0.14)	-1.13** (0.26)
ODA per capita	-0.11+ (0.07)	-0.12+ (0.07)	-0.25* (0.11)	-0.10 (0.07)	-0.15* (0.07)	-0.16 (0.11)
Past national founding	0.06** (0.02)	0.06** (0.02)	0.07* (0.03)	0.05* (0.02)	0.06** (0.02)	0.07* (0.03)
Past regional founding	0.00 (0.00)	-0.00 (0.00)	0.01 (0.01)	0.00 (0.00)	-0.00 (0.00)	0.01 (0.01)
Democracy	0.02 (0.02)	0.01 (0.02)	-0.03 (0.04)	0.01 (0.02)	0.01 (0.02)	-0.04 (0.04)
War	-0.04 (0.06)	-0.02 (0.06)	0.07 (0.10)	-0.02 (0.07)	-0.02 (0.07)	0.08 (0.10)
Economic freedom	0.99* (0.50)	0.98* (0.50)	-0.14 (0.84)	1.10* (0.52)	0.87+ (0.55)	-0.50 (0.91)
Religious fundamentalism		-0.88** (0.35)				-0.41 (0.50)
Profession			-2.96** (1.05)			-1.82* (1.07)
Earned income				0.03 (0.11)		0.07 (0.25)
Contraception				-1.29* (0.58)		-1.81* (0.90)
Parliament seats					-1.04 (1.15)	-0.08 (1.73)
CEDAW					-0.34 (0.46)	-1.22+ (0.78)
Constant	4.33* (1.95)	4.49* (1.95)	13.58** (3.69)	5.93** (2.22)	5.82** (2.48)	15.65** (4.49)
N	1264	1264	668	1153	1172	609
Log likelihood	-1135.30	-1132.49	-523.80	-1087.51	-1086.83	-499.86
Wald Chi Square	70.61**	78.43**	56.54**	76.07**	74.34**	61.46**

Standard errors in parentheses. Region and year fixed effects included.

One-tailed tests for directional constructs and two-tailed tests for controls.

Significance levels: + 0.10 * 0.05 ** 0.01

Table 3. Interaction Effects between Economic Conditions and Patriarchy on MFO Founding

	(1)	(2)	(3)	(4)
Economic freedom	0.92*	-0.19	1.19*	0.81+
	(0.53)	(0.84)	(0.52)	(0.57)
Religious fundamentalism	-0.83*			
	(0.37)			
Economic freedom X Religious fundamentalism	0.50			
	(1.51)			
Profession		-2.97**		
		(1.04)		
Economic freedom X Profession		2.56		
		(5.59)		
Earned income			0.01	
			(0.11)	
Contraception			-1.16*	
			(0.59)	
Economic freedom X Earned income			0.65	
			(0.56)	
Economic freedom X Contraception			2.51	
			(2.05)	
Parliament seats				-0.99
				(1.16)
CEDAW				-0.37
				(0.53)
Economic freedom X Parliament seats				7.17
				(6.78)
Economic freedom X CEDAW				-0.54
				(2.31)
N	1264	668	1153	1172
Log likelihood	-1132.42	-523.62	-1086.02	-1086.13
Wald Chi Square	78.54**	57.77**	79.25**	74.56**

Standard errors in parentheses. Region and year fixed effects included.

Results on controls dropped for brevity.

One-tailed tests for directional constructs and two-tailed tests for controls.

Significance levels: + 0.10 * 0.05 ** 0.01

Table 4. Fractional Probit Models Predicting Women's Lending

	(1)	(2)	(3)	(4)	(5)	(6)
Operational self-sufficiency	-0.01 (0.03)	-0.01 (0.03)	0.02 (0.05)	-0.02 (0.03)	-0.02 (0.03)	-0.01 (0.04)
MFO age	-0.03 (0.03)	-0.03 (0.03)	-0.08+ (0.04)	-0.04 (0.03)	-0.05 (0.03)	-0.10* (0.04)
MFO size	0.01 (0.01)	0.01 (0.01)	0.01 (0.02)	0.00 (0.01)	0.01 (0.01)	-0.00 (0.02)
Real GDP per capita	-0.05 (0.04)	-0.06 (0.04)	-0.24** (0.07)	-0.12** (0.04)	0.00 (0.04)	-0.19* (0.08)
ODA per capita	-0.04* (0.02)	-0.04* (0.02)	-0.09** (0.03)	-0.05** (0.02)	-0.03+ (0.02)	-0.10** (0.04)
Past national founding	0.03** (0.01)	0.02* (0.01)	0.06* (0.02)	0.03* (0.01)	0.03* (0.01)	0.07** (0.02)
Past regional founding	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Democracy	0.04** (0.01)	0.04** (0.01)	0.06** (0.01)	0.04** (0.01)	0.04** (0.01)	0.04** (0.01)
War	0.05** (0.02)	0.03+ (0.02)	0.01 (0.02)	0.04** (0.02)	0.04** (0.02)	-0.04+ (0.02)
Non-profit	0.36** (0.04)	0.37** (0.04)	0.38** (0.05)	0.34** (0.04)	0.37** (0.04)	0.36** (0.05)
Economic freedom	-0.82** (0.19)	-0.80** (0.19)	-1.10** (0.27)	-0.73** (0.20)	-0.76** (0.19)	-0.58* (0.28)
Religious fundamentalism		-0.16* (0.09)				0.21+ (0.15)
Profession			-0.80** (0.25)			-0.64** (0.25)
Earned income				-0.10** (0.03)		-0.07* (0.04)
Contraception				-0.45** (0.14)		-0.64** (0.21)
Parliament seats					1.03** (0.25)	2.41** (0.40)
CEDAW					-1.66** (0.20)	-1.10** (0.25)
Constant	3.89** (0.72)	3.82** (0.72)	6.75** (1.08)	4.64** (0.75)	2.35** (0.76)	2.94** (1.23)
N	2076	2076	1225	2038	2074	1199
Log likelihood	-882.98	-882.40	-516.19	-862.48	-878.84	-496.12
Wald Chi Square	1368.43**	1380.71**	546.60**	1447.84**	1568.74**	909.56**

Standard errors in parentheses. Region and year fixed effects included.

One-tailed tests for directional constructs and two-tailed tests for controls.

Significance levels: + 0.10 * 0.05 ** 0.01

Table 5. Interaction Effects between Economic Conditions and Patriarchy on Women's Lending

	(1)	(2)	(3)	(4)
Economic freedom	-0.70** (0.19)	-1.11** (0.27)	-0.74** (0.24)	-0.73** (0.19)
Religious fundamentalism	-0.19* (0.09)			
Economic freedom X Religious fundamentalism	-1.51* (0.83)			
Profession		-0.78** (0.25)		
Economic freedom X Profession		-0.70 (2.60)		
Earned income			-0.11** (0.03)	
Contraception			-0.41* (0.18)	
Economic freedom X Earned income			0.02 (0.31)	
Economic freedom X Contraception			-2.65+ (1.88)	
Parliament seats				1.20** (0.26)
CEDAW				-0.42 (0.46)
Economic freedom X Parliament seats				-5.78** (2.13)
Economic freedom X CEDAW				-15.80** (6.51)
N	2076	1225	2038	2074
Log likelihood	-881.55	-516.18	-858.10	-877.88
Wald Chi Square	1396.36**	548.34**	1502.07**	1692.58**

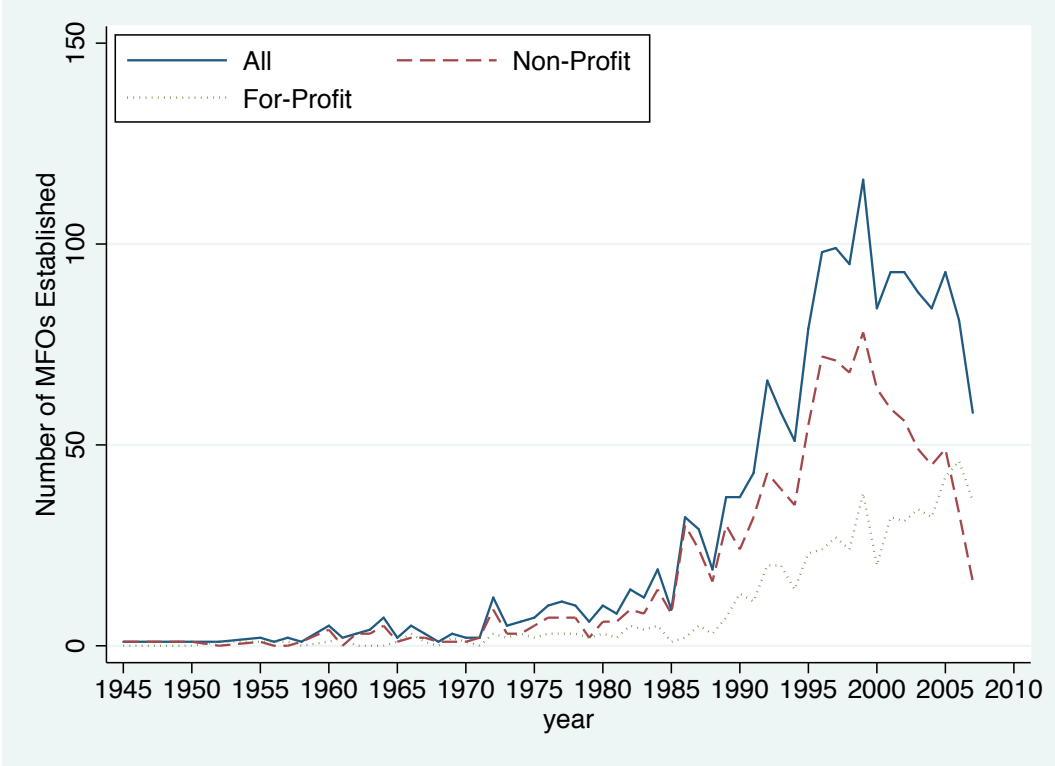
Standard errors in parentheses. Region and year fixed effects included.

Results on controls dropped for brevity.

One-tailed tests for directional constructs and two-tailed tests for controls.

Significance levels: + 0.10 * 0.05 ** 0.01

Figure 1. Number of MFOs Established by year



APPENDIX

Table A1. Descriptive Statistics of Key Variables in Founding Analyses

	Mean	S.D.	Min	Max
MFO founding	0.465	1.221	0	17
Real GDP per capita	8.358	1.122	5.707	11.156
ODA per capita	2.803	1.56	0	7.206
Past national founding	0.481	1.245	0	17
Past regional founding	12.586	12.718	0	63
Democracy	5.098	3.989	0	10
War	0.575	1.619	0	17
Economic freedom	4.057	0.26	1.609	4.499
Religious fundamentalism	0.125	0.33	0	1
Profession	0.553	0.133	0.29	0.999
Earned income	2.226	1.055	1.077	12.333
Contraception	0.544	0.243	0.13	0.99
Parliament seats	0.882	0.088	0.547	1
CEDAW	0.164	0.37	0	1
Economic freedom X Religious fundamentalism	-0.01	0.103	-1.247	0.273
Economic freedom X profession	-0.005	0.024	-0.1	0.121
Economic freedom X Earned income	0.007	0.192	-1.632	1.602
Economic freedom X Contraception	-0.018	0.049	-0.349	0.29
Economic freedom X Parliament seats	-0.004	0.019	-0.074	0.156
Economic freedom X CEDAW	-0.007	0.122	-1.764	0.353

Table A2. Descriptive Statistics of Key Variables in the Analyses of Women's Lending

	Mean	S.D.	Min	Max
PWB	0.666	0.279	0	1
Operational self-sufficiency	1.088	0.419	0.024	3.18
MFO age	1.907	0.806	0	4.043
MFO size	4.019	1.352	0.693	9.101
Real GDP per capita	7.931	0.809	6.155	9.73
ODA per capita	3.06	1.115	0	5.895
Past national founding	0.858	1.448	0	13
Past regional founding	13.025	8.402	0	40
Democracy	4.979	3.41	0	10
War	0.455	1.185	0	10
Economic freedom	4.046	0.13	3.414	4.369
Non-profit	0.583	0.493	0	1
Religious fundamentalism	0.101	0.301	0	1
Profession	0.751	0.117	0.42	0.98
Earned income	2.138	0.698	1.077	4.338
Contraception	0.546	0.219	0.13	0.97
Parliament seats	0.883	0.076	0.547	1
CEDAW	0.014	0.117	0	1
Economic freedom X Religious fundamentalism	-0.001	0.034	-0.318	0.193
Economic freedom X Profession	-0.003	0.012	-0.051	0.037
Economic freedom X Earned income	0.019	0.078	-0.382	0.377
Economic freedom X Contraception	-0.005	0.025	-0.116	0.084
Economic freedom X Parliament seats	-0.001	0.009	-0.042	0.039
Economic freedom X CEDAW	0.001	0.007	0	0.122

Table A3. Correlations of Key Variables in Founding Analyses

	1	2	3	4	5	6	7	8	9	10
1. MFO founding	1									
2. Real GDP per capita	-0.19	1								
3. ODA per capita	0	-0.49	1							
4. Past national founding	1	-0.19	-0.01	1						
5. Past regional founding	0.21	-0.33	0.24	0.21	1					
6. Democracy	-0.02	0.51	-0.22	-0.02	-0.07	1				
7. War	0.07	-0.25	0.03	0.07	-0.01	-0.17	1			
8. Economic freedom	-0.07	0.55	-0.08	-0.07	-0.16	0.47	-0.15	1		
9. Religious fundamentalism	-0.03	0.04	-0.05	-0.04	-0.19	-0.36	0.11	-0.12	1	
10. Profession	0.02	-0.4	-0.02	0.02	-0.05	-0.52	0.13	-0.19	0.38	1
11. Earned income	-0.03	0.16	-0.12	-0.03	-0.16	-0.24	0.02	0.04	0.54	0.36
12. Contraception	0.05	-0.73	0.45	0.05	0.17	-0.55	0.24	-0.37	0.14	0.45
13. Parliament seats	0.08	-0.38	0.22	0.08	0.08	-0.28	0.12	-0.2	0.25	0.41
14. CEDAW	-0.12	-0.02	0.02	-0.11	-0.18	-0.27	0.19	-0.11	0.26	0.12
15. Economic freedom X Religious fundamentalism	0.03	0.1	0.06	0.03	0.07	0.12	-0.09	0.4	-0.27	-0.1
16. Economic freedom X profession	0.01	0.14	-0.09	0.01	0.03	-0.12	-0.09	0.06	-0.07	0.09
17. Economic freedom X Earned income	0.04	-0.11	0.04	0.04	0.13	-0.22	-0.01	-0.03	-0.01	0.2
18. Economic freedom X Contraception	0.12	-0.13	0.02	0.12	0.14	-0.2	-0.23	-0.13	0.07	-0.07
19. Economic freedom X Parliament seats	0.05	-0.26	0.07	0.05	0.19	-0.35	0.02	-0.29	0.02	0.08
20. Economic freedom X CEDAW	0.02	0.14	0	0.02	0.01	0.1	-0.06	0.47	-0.04	-0.07
	11	12	13	14	15	16	17	18	19	20
11. Earned income	1									
12. Contraception	0.05	1								
13. Parliament seats	0.29	0.36	1							
14. CEDAW	0.38	0.19	0.2	1						
15. Economic freedom X Religious fundamentalism	0	-0.07	-0.05	-0.07	1					
16. Economic freedom X profession	0.22	-0.19	0.06	-0.05	0.34	1				
17. Economic freedom X Earned income	0.3	0.15	0.19	0.11	0.67	0.36	1			
18. Economic freedom X Contraception	0.15	-0.06	0.07	0.05	0.23	0.23	0.13	1		
19. Economic freedom X Parliament seats	0.16	0.08	0.33	0.01	0.23	0.42	0.4	0.43	1	
20. Economic freedom X CEDAW	0.08	-0.04	-0.04	-0.21	0.19	0.18	0.3	-0.14	0.1	1

Table A4. Correlations of Key Variables in the Analyses of Women's Lending

	1	2	3	4	5	6	7	8	9	10	11	12
1. PWB	1											
2. Operational self-sufficiency	-0.21	1										
3. MFO age	0.04	0.12	1									
4. MFO size	-0.06	0.1	0.36	1								
5. Real GDP per capita	-0.07	0.04	0.14	-0.02	1							
6. ODA per capita	-0.17	-0.05	-0.17	0.02	-0.31	1						
7. Past national founding	0.12	0.02	-0.18	-0.07	-0.01	-0.21	1					
8. Past regional founding	-0.02	0.06	-0.02	-0.07	0.01	0.04	0.12	1				
9. Democracy	0.05	-0.06	0.09	-0.02	0.38	-0.14	0.04	0.15	1			
10. War	0.06	-0.06	-0.04	0	-0.03	-0.22	0.21	-0.11	0.01	1		
11. Economic freedom	-0.15	0	0.16	-0.02	0.37	-0.02	-0.04	0	0.41	0.01	1	
12. Non-profit	0.22	-0.08	0.08	-0.24	0.11	-0.05	-0.03	-0.13	-0.02	0.07	0.01	1
13. Religious fundamentalism	-0.07	-0.01	-0.04	0.11	-0.03	-0.03	-0.03	-0.27	-0.14	0.29	-0.03	0.19
14. Profession	0.08	-0.13	-0.04	0.16	-0.36	-0.07	0.14	-0.22	-0.48	-0.04	-0.25	0.03
15. Earned income	-0.02	0.04	0.12	0.1	0.29	-0.18	0.08	-0.11	0.08	0.08	0.22	0.13
16. Contraception	0.02	-0.17	-0.11	-0.03	-0.73	0.24	-0.03	0.06	-0.34	0.04	-0.19	-0.15
17. Parliament seats	0	0.14	-0.07	0.06	-0.19	0.07	0.05	-0.04	-0.1	0.09	-0.1	-0.02
18. CEDAW	-0.09	0.03	-0.1	-0.07	0.02	0.03	-0.01	-0.05	-0.16	0.35	0.05	-0.02
19. Economic freedom X Religious fundamentalism	-0.02	-0.08	-0.04	-0.08	0.1	0.2	0.01	0	0	0.04	0.26	-0.04
20. Economic freedom X Profession	-0.09	0.02	-0.08	0.01	0.17	0.16	-0.1	-0.01	-0.14	-0.09	0.04	-0.06
21. Economic freedom X Earned income	0.07	0.04	-0.05	-0.02	0.12	0.03	-0.01	0.07	-0.12	-0.19	-0.12	0.07
22. Economic freedom X Contraception	0.03	0.05	-0.08	0.07	-0.02	0.07	-0.03	-0.06	-0.19	-0.05	-0.23	-0.11
23. Economic freedom X Parliament seats	-0.05	0.04	-0.1	0.04	-0.11	0.23	-0.05	-0.1	-0.22	-0.05	-0.06	-0.05
24. Economic freedom X CEDAW	-0.19	0.04	0	-0.05	0.04	0.01	-0.04	0.05	-0.11	-0.03	0.06	-0.09
	13	14	15	16	17	18	19	20	21	22	23	24
13. Religious fundamentalism	1											
14. Profession	0.52	1										
15. Earned income	0.37	0.39	1									
16. Contraception	0	0.29	-0.2	1								
17. Parliament seats	0.19	0.32	0.18	0.04	1							
18. CEDAW	0.16	0.01	0.12	0.11	0.04	1						
19. Economic freedom X Religious fundamentalism	-0.12	-0.12	0.04	-0.06	0.01	0	1					
20. Economic freedom X Profession	-0.04	0.15	0.07	-0.16	0.17	0.04	0.45	1				
21. Economic freedom X Earned income	-0.04	0.02	0.21	-0.21	-0.04	0.03	0.38	0.29	1			
22. Economic freedom X Contraception	0.01	0.01	-0.23	-0.08	-0.05	0.08	-0.04	0.25	0.02	1		
23. Economic freedom X Parliament seats	0.05	0.13	-0.03	-0.06	0.12	0.05	0.18	0.31	0.15	0.09	1	
24. Economic freedom X CEDAW	-0.02	0.01	0.07	0.08	0.05	0.97	0	0.04	0.03	0.08	0.05	1

Table A5. Cross-Form Differences on MFO Founding

	(1)	(2)	(3)	(4)	(5)
Economic freedom	1.67** (0.66)	1.67** (0.66)	0.96 (1.16)	1.83** (0.69)	1.59* (0.72)
Non-profit	3.72+ (2.48)	3.52+ (2.49)	1.39 (4.60)	4.96* (2.74)	1.71 (3.04)
Non-profit X Economic freedom	-0.96+ (0.66)	-0.96+ (0.66)	-1.64+ (1.13)	-0.99+ (0.69)	-1.14+ (0.71)
Religious fundamentalism		-1.06** (0.45)			
Non-profit X Religious Fundamentalism		0.43 (0.39)			
Profession			-3.61** (1.34)		
Non-profit X Profession			0.87 (1.19)		
Earned income				-0.06 (0.14)	
Non-profit X Earned income				0.21+ (0.13)	
Contraception				-0.79 (0.68)	
Non-profit X Contraception				-0.56 (0.61)	
Parliament seats					-3.07* (1.34)
Non-profit X Parliament seats					2.79* (1.30)
CEDAW					-1.48+ (1.05)
Non-profit X CEDAW					1.46+ (1.08)
Constant	1.06 (2.55)	1.34 (2.56)	11.96** (4.93)	1.69 (2.82)	4.15+ (3.17)
N	2530	2530	1336	2308	2346
Log likelihood	-1502.25	-1499.37	-688.30	-1440.79	-1430.52
Wald Chi Square	123.06**	128.42**	93.62**	133.02**	126.45**

Standard errors in parentheses. Region and year fixed effects included.

Results on controls dropped for brevity.

One-tailed tests for directional constructs and two-tailed tests for controls.

Significance levels: + 0.10 * 0.05 ** 0.01

Table A6. Cross-Form Differences on Women's Lending

	(1)	(2)	(3)	(4)	(5)
Economic freedom	0.00 (0.26)	0.20 (0.27)	0.01 (0.37)	-0.06 (0.27)	0.04 (0.26)
Non-profit	5.71** (1.38)	6.27** (1.42)	7.67** (2.00)	4.60** (1.45)	4.07** (1.46)
Non-profit X Economic freedom	-1.56** (0.37)	-1.73** (0.38)	-1.76** (0.51)	-1.36** (0.38)	-1.51** (0.37)
Religious fundamentalism		-1.09** (0.25)			
Non-profit X Religious fundamentalism		0.98** (0.27)			
Profession			-0.67* (0.33)		
Non-profit X Profession			-0.12 (0.47)		
Earned income				-0.16** (0.05)	
Non-profit X Earned income				0.09+ (0.06)	
Contraception				-0.57** (0.24)	
Non-profit X Contraception				0.21 (0.31)	
Parliament seats					0.11 (0.36)
Non-profit X Parliament seats					1.30** (0.49)
CEDAW					-1.57** (0.20)
Non-profit X CEDAW					0.00 (.) ^a
N	2076	2076	1225	2038	2074
Log likelihood	-872.51	-868.99	-504.38	-852.58	-868.02
Wald Chi Square	10624.08**	10773.04**	838.99**	10740.61**	10895.55**

Standard errors in parentheses. Region and year fixed effects included.

Results on controls dropped for brevity.

One-tailed tests for directional constructs and two-tailed tests for controls.

Significance levels: + 0.10 * 0.05 ** 0.01

^a This variable was omitted due to lack of variation on CEDAW among non-profit MFOs