Human Resources and Performance in Social Enterprises: Evidence from Microfinance Institutions

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To my Mom, Dad and Sisters

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Introduction

1. Human Resources in Social Enterprises

Social enterprises are organizations whose main objective is to achieve social goals in an entrepreneurial manner (Borzaga & Defourny, 2001). Following various economic, political, and environmental changes, social enterprises have achieved prominence in society as they offer services that public entities do not sufficiently satisfy or that are not deemed as profitable enough for the private entities (Shaw, Gordon, Harvey, & Maclean, 2013). Typical examples include Work Integration Social Enterprises (WISEs), which offer employment opportunities to potentially employable people who are excluded from the labor market (Vidal, 2005), microfinance institutions, which provide access to financial services to the unbanked members of society (Yunus, 2009), and fair-trade organizations, which seek to improve welfare conditions of workers in developing countries (Nicholls & Opal, 2004). Thus, social enterprises are viewed as capable of integrating the efficiency and innovativeness of for-profits and the mission and values of not-for-profits (Battilana, Lee, Walker, & Dorsey, 2012; Battilana & Lee, 2014). In this sense, social enterprises are hybrid organizations due to their dual objective, which is considered to be their major distinguishing characteristic (Doherty, Haugh & Lyon, 2014).

Employees of social enterprises are considered key contributors to the attainment of the firm's goals (Beisland, D'Espallier, & Mersland, 2019). The fact that social enterprises are described as being more labor intensive than capital intensive (Ohana & Meyer, 2010; Anheier, 2005) underlines the extent to which social enterprises rely on their employees. Additionally, the employees of social enterprises are an important influence on how such firms can effectively combine the social and financial goals since these goals tend to be of a conflicting nature such that the successful achievement of one goal may come at the expense of the other (Civera, Cortese, Mosca, & Murdock, 2020). Specifically, the employees of social enterprises are considered to be among the important drivers of hybrid organizing, which refers to the "activities, structures, processes, and meanings by which organizations make sense of and combine aspects of multiple organizational forms" (Battilana & Lee, 2014, p. 412). In order for employees of social enterprises to alleviate the social–commercial tensions inherent in social enterprises, Battilana

and Lee (2014) recommend that social enterprises adopt a socialization strategy that facilitates the identification of new hires with the firms' values. The authors also suggest hiring individuals who possess both social and commercial orientations as another potential strategy (Battilana & Lee, 2014).

It is also important to note that employees of social enterprises are often described as being prosocially motivated (Besley & Ghatak, 2005); that is, they are driven by the desire to make a positive difference in other people's lives (Brolis, 2018). Social enterprises are thus viewed as attracting and selecting employees whose values match their social mission (Brolis, 2018). These employees tend to be more intrinsically motivated than their counterparts in the for-profit sector and are more likely to settle for non-pecuniary than pecuniary rewards (Battilana & Dorado, 2010). The former can be advantageous as social enterprises often have insufficient financial resources to offer satisfactory pecuniary compensation (Doherty et al., 2014; Austin, Stevenson, & Wei-Skillern, 2006).

The employees of social enterprises are also diverse and tend to come from both the for-profit and non-profit sectors. Specifically, social enterprises are inclined to hire employees from the non-profit sector who have the skills and experience conducive to the achievement of the social mission, as well as employees from the for-profit sector who have the skills and experience necessary for the achievement of the financial goal (Battilana & Dorado, 2010; Battilana & Lee, 2014). However, due to their diverse backgrounds, employees of social enterprises are susceptible to interpersonal as well as role conflicts (e.g., Battilana & Dorado, 2010; Pache & Santos, 2010; Smith, Gonin & Besharov, 2013). Smith et al. (2013) highlight that these employees are also subject to identity problems that make them question who they are, what they are doing, and why they are doing it. Roumpi, Magrizos & Nicolopoulou (2020) argue that the effect of such tensions on the employees of social enterprises may well be the biggest challenge faced by social enterprises.

Additionally, it has been argued that employees are the most valuable resource of social enterprises (Battilana & Dorado, 2010; Doherty et al., 2014), and therefore social enterprises need to be able to acquire and retain the right employees to succeed (Battilana & Dorado, 2010; Moses & Sharma, 2020). Yet, human resource acquisition and retention are reported to be among the main challenges faced by social enterprises (Moses & Sharma, 2020). One of the reasons social

enterprises have difficulty acquiring and keeping employees is that they tend to have less financial capital compared to for-profit firms (Doherty et al., 2014; Ohana & Meyer, 2010). Thus, social enterprises often invest less in ensuring effective management of human resources (Doherty et al., 2014). Scholarly research offers a few suggestions for acquiring and retaining the right employees. For example, Caringal-Go and Hechanova (2018) emphasize the importance of understanding both the extrinsic and intrinsic needs of social enterprise employees. Similarly, Moses and Sharma (2020) show that providing a competitive salary may be important for acquiring social enterprise employees while offering non-monetary benefits may be important for retaining them.

In light of the above findings, the social enterprise literature needs to identify the right employee profile that can help ensure the high performance of social enterprises. To do so, it must take into account the hybrid nature of social enterprises, which, as highlighted above, can create challenges that prevent employees from achieving the firm's goals and ultimately its sustainability. Although 24% of social enterprise studies explore the theme of human resources (Gupta, Chauhan, Paul & Jaiswal, 2020), the studies focus on issues such as employee motivation, learning, training, and human capital, while hardly any focus on how the employees impact social enterprise performance. This dissertation therefore seeks to fill this gap by addressing issues such as staff diversity, tenure, and turnover inasmuch as these influence social enterprise performance outcomes. In particular, it will examine the type of social enterprises known as microfinance institutions, as discussed in the next section.

2. Research Context: Microfinance Institutions

Microfinance institutions (MFIs) are social enterprises that offer financial services such as business loans to low-income families that do not have access to formal banking. MFIs are classified as social enterprises as they perform a social mission in a business manner (Battilana & Dorado, 2010). The first MFIs were founded in the late 1970s and since then have established a presence around the world, mostly in low-income countries. MFIs gained global recognition when the United Nations proclaimed 2005 as the International Year of Microcredit and when the Nobel Peace Prize was awarded to Mohamad Yunus and the Grameen Bank in 2006. Microfinance institutions are also viewed as a major contributor to the United

Nations Sustainable Development Goals of ending poverty and, hunger and promoting gender equality, economic growth, industry, innovation, and infrastructure, among other goals (Mader, 2018).

Microfinance has also been hailed for its ability to strengthen the bargaining position of women within the domestic sphere and beyond (Armendariz & Morduch, 2010), thus enabling them to have a say in financial matters pertaining to the household. In fact, women make up the vast majority of microfinance clients (Mersland, Nyarko, & Szafarz, 2019; D'Espallier, Guérin, & Mersland, 2013). Moreover, women tend to have higher loan repayment rates compared to male clients (D'Espallier, Guérin & Mersland, 2011). For these reasons, microfinance is sometimes viewed as a gendered industry (Johnson, 2004).

It is important to note that microfinance institutions have varying success, with some succeeding and others failing (Ahlin, Lin, & Maio, 2011). While studies have attempted to understand what factors contribute to the optimal performance of MFIs, Mersland and Strøm (2014) report that such studies are still in their infancy. Moreover, Hermes and Hudon (2018) show that almost all of these studies focus on determinants of microfinance performance such as size, age, type of MFI, funding sources, and governance, while hardly any address the ways in which the employees, which are purported to be the most important resource in MFIs (Battilana & Dorado, 2010), impact performance (Chakravarty & Pylypiv, 2017). The next section presents a brief description of the role of microfinance employees (loan officers).

2.1 The role of microfinance loan officers

In microfinance, loan officers establish relationships with the clients and these relationships are considered an integral part of the microfinance business model (Afonso, Morvant-Roux, Guérin & Forcella, 2017). Learning about clients through their relationship with the loan officer, also referred to as relationship lending (e.g., Uchida, Udell, & Yamori, 2012), is considered crucial for overcoming problems of information asymmetry since microfinance clients tend to be informationally opaque (Agier, 2012). Thus, the relationships enable loan officers to gain the clients' trust (Drexler & Schoar, 2014) and obtain soft information about the clients, their needs, and any potential assets that they may have (Godfroid, 2019;

Siwale & Ritchie, 2012). All of this information is important for the success of the lending process.

Besides reducing information asymmetry, which potentially benefits the borrowers, microfinance loan officers have other roles. Fisher, Sriram, and Harper (2002) mention three, namely, to encourage clients' participation in microfinance, to provide services to clients, and to help reduce potential client default. Moreover, microfinance loan officers act not only as debt collectors, but sometimes also as advisors to clients concerning their business activities (Siwale & Ritchie, 2012). Finally, Siwale and Ritchie (2012) describe loan officers as playing a critical mediating role between the MFI and clients. They are the first point of contact with the MFI and are sometimes referred to as front-line staff or foot soldiers (Siwale & Ritchie, 2012).

In carrying out these various activities, loan officers face significant challenges. They experience tensions in achieving both the financial and social goals (Beisland et al., 2019). These typically divergent goals impose conflicting demands upon loan officers that may lead them to favor one goal over the other, a phenomenon Beisland et al. (2019) refer to as personal mission drift. The loan officers also experience role conflicts as both advisors and debt collectors (Siwale & Ritchie, 2012). Although they offer advice to clients, they are put in an uncomfortable situation when they have to be strict with clients in situations of default (Kar, 2013). Additionally, they are exposed to harsh conditions in the field that make their work even more difficult, such as poor transportation services and infrastructure, safety issues, and bad weather conditions as they travel to meet clients in remote areas (van den berg, Lensink, & Servin, 2015; Siwale, 2016).

The aforementioned challenges can ultimately contribute to staff turnover in microfinance (Siwale, 2016), which is one of the major human resource issues faced by microfinance institutions (e.g., Microfinance Insights, 2008). The importance of a close relationship between loan officers and clients in microfinance suggests that staff turnover could have more detrimental performance effects for MFIs than for other types of firms. Frankiewicz (2021) finds that, MFIs must be able to retain their employees to succeed.

In light of the above findings, the vital role of the employees of social enterprises and particularly the loan officers of MFIs is quite evident. Thus, an in-depth analysis of various employee characteristics such as building relationships with clients, managing multiple roles, and coping with workplace challenges can be informative in determining how the employees impact performance in social enterprises and in particular microfinance institutions. This is discussed in detail in the next section on research themes.

3. Research Themes

The thesis makes an empirical contribution to understanding human resources in social enterprises and their impact on performance by focusing on two main themes related to employees, namely, employee–client relationships and staff turnover. Although these themes have been touched on in the social enterprise and especially microfinance literature (e.g., Siwale & Ritchie, 2012; Drexler & Schoar, 2014), a deeper analysis can provide insights into how they ultimately impact firm performance. Figure 1 provides an illustration of these themes and how they are related to the different chapters in this thesis.

3.1 Employee–Client Relationships

Human resource studies in the for-profit sector have shown that characteristics such as age, gender, religion, and race in employee–client relationships influence firm performance (e.g., Dwyer, Orlando & Shepherd, 1998; Gonzalez, 2013; Avery, McKay, Tonidandel, Volpone & Morris, 2012). By contrast, human resource studies in the social enterprise sector, where the relationship between loan officers and clients is critically important, have given little attention to the influence of such characteristics on firm performance. A relevant theory for understanding how the characteristics of loan officer–client relationships influence firm performance is that of similarity attractiveness. It states that individuals tend to be attracted to those with whom they share similarities (Byrne, 1971). The theory has been extended to the business sphere to show that the presence of similarities between employees and clients can lead to positive performance outcomes for a firm (Gonzalez, 2013; Avery et al., 2012). In microfinance, a few studies touch on similarity attractiveness in the context of loan officer and client preferences but do not examine its impact on firm performance. For example, Ahmad (2017) and Banthia, Greene, Kawas, Lynch and Slama (2011) highlight a

tendency for women clients to prefer fellow women as loan officers, and Labie, Méon, Mersland and Szafarz (2015) find that loan officers are likely to prefer clients with similar social characteristics to theirs.

In this dissertation, I explore the performance impact of similarities (or the lack thereof) between loan officers and clients based on the social characteristics of socioeconomic status (Chapter 1) and gender (Chapter 2). There is evidence that issues of socioeconomic status and, specifically, socioeconomic inequality are the rationale for the existence of various social development efforts globally (World Bank, 2020). In microfinance particularly, evidence exists that even among the poor, some people are considered poorer (Labie et al., 2015), creating further segmentation even at the bottom of the pyramid markets that warrants investigation. In terms of gender, microfinance is well known for its empowerment of female clients, who have higher repayment rates than male clients and hence a positive impact on firm performance. With regard to the gender of the loan officers, positive performance outcomes tend to vary between male and female loan officers based on the context. For example, van den berg et al. (2015) find that male loan officers facilitate better repayment outcomes in a Mexican MFI, whereas Beck, Behr & Guettler (2013) find that it is rather female loan officers that are better in an Albanian bank. However, these studies do not explore the gender of the loan officer and the client in tandem as this dissertation attempts to do. Investigating this can thus have important implications for the human resource management of MFIs.

3.2 Staff turnover

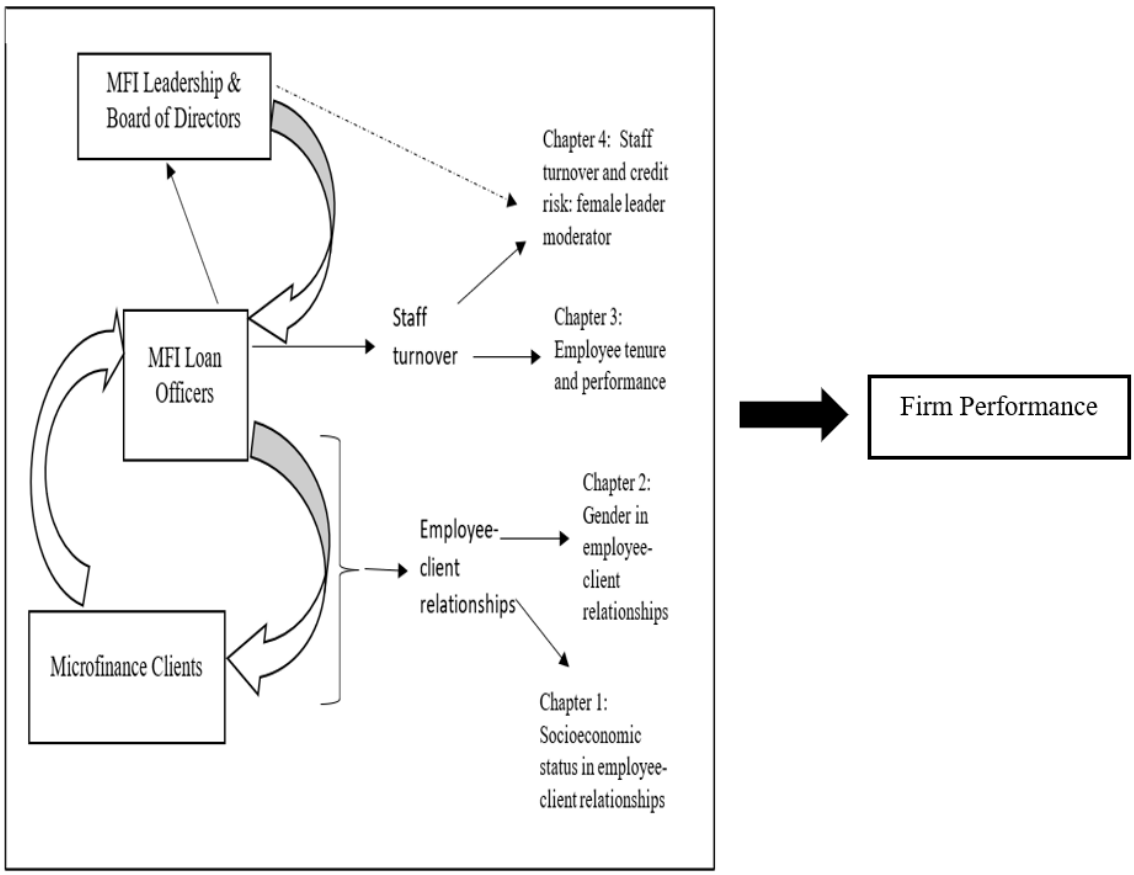
Like any other firm, microfinance institutions experience staff turnover. As noted above, high staff turnover can be detrimental to the performance of social enterprises like MFIs that are highly dependent on the relationships between loan officers and clients. This dissertation explores staff turnover from two perspectives: employee tenure and firm leadership.

Firstly, it explores the impact of employee tenure on social enterprise performance (Chapter 3). Employee tenure refers to the length of an employee's stay in the firm. Thus, shorter tenure implies high staff turnover whereas higher tenure implies low staff turnover. Social enterprises are reported to attract, select, and retain

employees who fit the firm's values (Brolis, 2018); however, they are still subject to staff turnover. Thus, by analyzing which employees, i.e., short-tenured, medium-tenured or long-tenured, have a positive influence on performance, I can obtain insights into which employees best fit with social enterprise values.

Secondly, the dissertation explores the impact of staff turnover on credit risk and the potential moderating role of female leadership (Chapter 4). When staff turnover occurs, it leads to the loss of employees who are important for establishing relationships with clients and ensuring client repayment (Canales & Greenberg, 2016; Drexler & Schoar, 2014). Thus, staff turnover may have harmful effects on the performance of MFIs especially in regard to credit risk which is an important measure of MFI sustainability (Cull, Demirgüç-Kunt, & Morduch, 2009). The staff turnover-credit risk relationship is thus examined in Chapter 4. Additionally, the chapter examines the role of female leadership in the staff turnover situation. The leadership of a firm has been found to be an important influence on the workforce, and the leadership of social enterprises is no exception to this finding. For example, Ohana and Meyer (2010) highlight the importance of a leader's relationship with employees in preventing and mitigating staff turnover effects in social enterprises. Microfinance studies have highlighted the role of female leaders for positive performance outcomes (Strøm et al., 2014). Thus, investigating the role of female leadership should be informative about staff turnover effects and ultimately the sustainability of MFIs.

Figure 1: MFI loan officer roles and their impact on firm performance



Adapted from Siwale & Ritchie (2012)

4. Data

The data used in this dissertation is obtained from three data sources.

The first dataset is obtained from rating reports. It is based on a compilation of reports from microfinance rating agencies such as M-Cril, Microfinanza, Planet Rating, Crisil, and MicroRate. The rating agencies are approved by the rating fund of the Consultative Group to Assist the Poor (CGAP). Rating data is considered one of the most credible sources of microfinance data since it is checked by a third party as opposed to being self-reported. Rating data is also considered more representative of MFIs than other data sources (Mersland, Randøy, & Strøm, 2011). The rating dataset used in this dissertation consists of annual information on the governance, employees, and financial and social operations of microfinance institutions in different parts of the world.

The second dataset used in this dissertation is obtained from Banco D-MIRO, a microfinance institution in Ecuador. Banco D-Miro started as a small microcredit project initiated by the Norwegian Mission Alliance in 1997. Beisland and Mersland (2017) explain that Banco D-MIRO is a suitable example of a microfinance institution since it is both financially and socially oriented. Moreover, Banco D-MIRO has undergone a transformation from an NGO to a bank, as is now the trend in the microfinance industry (D'Espallier, Goedecke, Hudon & Mersland, 2017). Finally, Banco D-MIRO receives funding from international stakeholders, which is another growing trend among MFIs globally (Mersland et al., 2011). The dataset used contains quarterly information on the bank's loan officers and clients as well as information on their individual characteristics such as age, gender, and education.

Finally, the third dataset used is from the Microfinance Information Exchange (MIX) market. This is a widely recognized and easily accessed source of microfinance data (Hermes & Hudon, 2018; Zhao & Wry, 2016). It contains yearly information on different aspects of microfinance institutions such as their products and services and financial and social performance. Since MIX market data is self-reported, a potential weakness is that it contains information on large MFIs only (Hermes & Hudon, 2018). In this dissertation, the MIX data is used mainly to reinforce the rating data regarding some observations in Chapter 4.

The next section provides a brief summary of each of the chapters in this dissertation.

5. Overview of the Chapters

The dissertation consists of four chapters each exploring a different aspect of human resources and its impact on social enterprise performance.

The first chapter addresses the fundamental question of whether employees of higher socioeconomic status are more suitable to serve bottom-of-the-pyramid clients compared to employees of lower socioeconomic status. Answering this question will provide insights into potential characteristics of bottom-of-the-pyramid markets that can influence employee–client interactions and ultimately firm performance. A global dataset of rated microfinance institutions is used to

perform the analysis for this chapter. The results show that employees of higher socioeconomic status are more suitable to serve poorer clients compared to employees of lower socioeconomic status. The results have implications for MFIs that are targeting these markets, particularly in terms of employment strategy. They suggest the need for social enterprises like MFIs to consider employee profiles as well as client profiles when deciding which new markets to target in the developing market context.

The second chapter assesses whether the gender of the loan officer and the client impacts loan repayment rates in microfinance institutions. This study is motivated by the heightened importance of the relationships between loan officers and clients in microfinance institutions and uses data from Banco D-MIRO, an Ecuadorian MFI. The results show that loan officer–client pairs with a female loan officer have higher repayment rates relative to those with a male loan officer. Moreover, it is shown that female loan officer–female client pairs have the highest repayment rates, and male loan officer–male client pairs have the lowest. These results highlight the important role that women play not only as clients but also as employees of MFIs. Finally, the chapter also supports the above results with qualitative insights from the field.

The third chapter examines the influence of employee tenure on staff performance in social enterprises. It is well known that social enterprise employees experience higher turnover as a result of the tensions arising from having to meet both social and financial goals. An examination of the impact of employee tenure on performance is thus an important factor in determining the characteristics of the employees that are better performers and hence more likely to remain with the firm despite the challenge of meeting the dual objective. Using data from an Ecuadorian microfinance firm, the chapter shows that employee tenure influences financial performance and social performance differently. Specifically, it demonstrates that the longest-serving employees of the firm are more motivated by the social mission compared to those who leave early in their tenure. Additionally, the results suggest that social enterprise employees with the longest tenure are the least inclined to experience difficulty in balancing the both the social and financial goals. The chapter highlights the need to effectively integrate and socialize those social enterprise employees who are likely to experience tensions between the social and financial goals.

The fourth chapter explores the vital role of female leadership in the staff turnover situation. Since staff turnover is characterized by the loss of employees, it may lead to high credit risk in MFIs. Mitigating these effects is therefore important for the sustainability of these firms. Thus, this chapter determines whether female leadership can mitigate negative outcomes of high staff turnover, after all, female leaders tend to have a positive influence in MFIs. Using global data on microfinance firms, the chapter reveals that female leaders mitigate the negative effects of staff turnover on credit risk. This can be attributed to women's preference for a participative leadership style, their development-oriented nature, and their overall positive influence on organizational behavior and culture. The chapter highlights the benefits of female leadership in socially oriented firms not only for the clients as is commonly shown in past studies, but also for the employees.

Overall, this dissertation contributes to the literature on human resources in social enterprises and, in particular, microfinance institutions by examining how employees impact the social and financial performance of these firms. Additionally, the dissertation has several implications for development in terms of financial inclusion and women's empowerment from the perspective of the employees, clients, and even leadership. It also highlights the need for careful consideration of the employment strategy for social enterprises seeking to operate in the developing market context that have various social norms and practices embedded within them. Future research remains necessary in order to carefully understand how, and which, employees positively influence social enterprise performance. For example, future research could analyze the impact of employee education, which is one of the characteristics that differentiates social enterprise employees from for-profit employees. Furthermore, research is needed to understand how global trends such as digitization can affect employee activities and social enterprise performance.

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Chapter 1: Is Employee- Client Matching Good for Firms Targeting the Bottom of the Pyramid? A Study of Microfinance Institutions*

Abstract

Purpose: The purpose of the study is to determine whether there exists employee-client matching at the Bottom of the Pyramid (BOP) as well as the most favourable employee-client categorization in terms of employee productivity when serving the BOP market. This is important in a bid to determine how to effectively operate at the BOP given the market's unique characteristics.

Design/methodology/approach: This study uses two methods depending on the research question. Firstly, a one-way analysis of variance (ANOVA) is used to determine the different employee-client categories based on socio-economic status. Secondly, Fixed Effects analysis are performed based on these categories to determine the most suitable employee-client category.

Findings: The results show the existence of employee-client matching based on similar socio-economic status. However, multivariate testing reveals that the mismatch category, where employees are of higher socio-economic status than the clients, generates more favourable employee productivity. Moreover, this result may be contingent on the geographical location of the firm.

Practical implications: The findings are important for human resource management particularly, the employment strategy of BOP firms. It suggests the need to consider employee profiles as well as client profiles when deciding which new markets to target.

Originality/value: The paper uses a global database of microfinance institutions as a case of BOP firms to investigate employee-client matching at the bottom of the pyramid**.**

Key words: Employee-Client Matching, Socio-economic Status, Homophily, Bottom of the Pyramid, Employee Productivity, Microfinance

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1. Introduction

Who should a firm hire when targeting clients at the bottom of the pyramid? Should it hire employees from the same social strata as its clients or would it be beneficial to have employees from higher or lower social strata than its clients? We address these questions in this paper.

Over the past couple of decades, the bottom of the pyramid (BOP) market has received significant recognition. It is the largest market in terms of number of potential clients consisting of the approximately 4 billion of the world population (Prahalad & Hart, 2002; Hammond et al., 2007; Schuster & Holtbrügge, 2012; Bocken, Fil & Prabhu, 2016). Within the BOP market, some clients are considered less poor than others thus, diversifying the clientele. Moreover, there are enormous opportunities for firms due to the aggregate demand embedded within this market (Prahalad, 2006). Despite this, a common challenge for firms targeting the BOP is how to effectively deliver products and services.

Firms operating in the BOP market include social enterprises and non-profits as well as regular for-profit corporations. Microfinance institutions (MFIs), which are the subject of this study, are social enterprises operating with both financial and social logics (Battilana & Dorado, 2010). Microfinance institutions started out in the 1980s as socially oriented institutions with the goal of lending to the unbanked (Morduch, 1999). Since then, the microfinance industry has grown tremendously and evolved to include institutions ranging from non-profit entities to commercial banks.

Hart & London (2005) suggest that in order to effectively serve the BOP market, firms should become ‘indigenous’ to the society. In other words, firms should become embedded within the market segment and ultimately gain client acceptability. This suggests that serving these markets is not merely about providing affordable low-cost products. A step in becoming indigenous may also involve hiring employees from the local target community as they are believed to have a better understanding of the clients’ beliefs and practices. They also have the

added advantage of being able to communicate in the local language unlike employees hired from outside the market (Kennedy, 2012; Banthia et al., 2011). Additionally, the social characteristics of employees and clients may influence operations at the BOP (Labie, Méon, Mersland & Szafarz, 2015). For instance, Ahmad (2002), in his study of non-profit firms in Bangladesh, suggests that gender similarities between employees and clients facilitate the provision of non-financial and financial services to women. Beck, Behr & Madestam (2011) find that there is less likelihood that first-time clients will return for another loan when served by employees of the opposite gender. This preference for similar others may apply not only to clients but also to employees, who may prefer association with clients who are similar to them (Labie et al., 2015). Along these lines, international development organizations like the World Bank require their partners to hire local employees in a bid to establish strong internal ties with clients in the countries of operation (Kennedy, 2012). Overall, this literature indicates homophilic tendencies (McPherson, Smith-Lovin & Cook, 2001) at the BOP, suggesting the benefits of employee-client matching a concept that has been explored mainly in the upper levels of the economic pyramid (for example, Gonzalez, 2013; Avery et al., 2012).

In this paper, we seek to answer two research questions. The first is whether employees and clients of BOP firms are matched based on similar socio-economic status. The second is whether employee-client matching on socio-economic basis enhances employee productivity when firms target BOP markets. Our theoretical foundation is the similarity attractiveness paradigm (Byrne, 1971). It suggests that individuals tend to prefer association with those with whom they share similarities along certain social dimensions. Thus, in our study we assume that clients prefer employees similar to them and, vice versa, employees prefer clients similar to them.

Oakes & Rossi (2003) consider socio-economic status as a measure of differences in access to necessary resources. Other scholars refer to it as a measure of individual economic and social differences in terms of income, occupation, or education (Adler & Snibbe, 2003). Since some MFIs focus on the very poor whereas others focus on the less poor (Labie et al., 2015; Armendariz & Szafarz, 2011), the socio-economic status of employees and clients presents a potential dimension along which to investigate employee-client matching at the BOP. Additionally, the interpersonal nature of the employee-client relationship in MFIs

(Siwale & Ritchie, 2012) presents a solid foundation for studying this matching concept.

Empirical evidence outside the BOP literature finds that matches between employees and clients are characterized by improved performance and productivity outcomes particularly in the sales field and more recently in banking (Gonzalez, 2013; Fisman, Paravisini & Vig, 2017). Nevertheless, some scholars suggest that although individuals may prefer association with others that are similar to them, matching may not have a positive impact on performance. For instance, Dwyer, Orlando & Shepherd (1998) suggest that matching may demotivate employees and limit their sales potential since they are restricted to a particular clientele. These mixed findings on non-BOP markets make the logics behind matching employees and clients uncertain. In the middle ground, Joshi & Roh (2009) suggest that context is an important determinant of the outcomes of employee-client matching. The unique characteristics of the BOP relative to other market segments therefore make it an interesting case to study employee-client matching.

We use data from 474 MFIs operating in 87 countries. The employees and clients' socio-economic status are measured by average salary and average loan size respectively. Regarding the first research question, we find very strong support for the existence of matches between employees and clients based on similar socio-economic status. For the second research question the association between employee-client matching and employee productivity – the results do not support our assumption of a more favourable outcome in the presence of socio-economic similarity. We find that employee productivity is most favourable when employees are of higher socio-economic status than the clients. Our results also show that the least favourable employee-client category is that where lower socio-economic status employees serve higher socio-economic status clients. This seems to suggest that higher socio-economic status employees are more favourable regardless of whether they are matched with very poor or less poor clients. Thus, the beneficial effect of similarity matching on employee productivity is supported only for the high-status employee/high-status client category.

Our study responds to the call for more human resource research in BOP enterprises (Labie et al., 2015). One take-away from this study is that in terms of productivity, MFIs should not match low status employees with high status clients.

Whether this result generalises to other BOP firms which depend on the employee-client relationship, is a topic for future research. Regarding the concept of local engagement with the community through hiring locals, our results suggests that this will not be beneficial in terms of productivity. Furthermore, our results hint that commercialization may lead to less engagement with the community in terms of hiring locals. Our results present a puzzle with regard to similarity-attractiveness hypothesis. We find that firms actually match employees and clients based on similarity, however, the rationale for this remains unclear. Ultimately, it may be important to consider regional variations when establishing the employment strategy of such firms.

The paper proceeds as follows. In the next section, we present a background to the commercialization aspects in microfinance. In Section 3, we present our theoretical framework and develop testable hypotheses. In Section 4 we present the data and methods. In Section 5 we present the results. In Section 6 we discuss our results and Section 7 concludes.

2. Background: Aspects of Commercialization in Microfinance

Social enterprises like microfinance institutions are firms that combine a social and financial logic. Therefore, due to this dual logic, they can be described as hybrid firms (Doherty, Haugh & Lyon, 2014; Battilana & Dorado, 2010). These firms mainly seek to fulfill the needs of society that remain unmet by the public sector and private organizations. Thus, the social mission is considered as core and tends to vary among social enterprise types. Common examples of social missions include poverty alleviation, employment creation, inequality reduction and environmental protection (Doherty et al., 2014). As such, microfinance institutions like other social enterprises, can be viewed as firms that contribute to social change at the bottom of the pyramid markets (Goyal et al., 2014). To remain sustainable, it is important for such hybrid firms to balance the social and financial objectives.

However, balancing these objectives may be a challenge for such firms due to the competing nature of the institutional logics that they ascribe to. Indeed, there is vast discourse in social enterprise literature with terms such as ‘trade-offs’ and ‘tensions’ being used to reflect this complexity. For instance, Wry & Zhao (2018) find that microfinance institutions experience a trade-off when there is more focus

on the social objective relative to the financial objective. Likewise, since these firms tend to have various stakeholders, pressures may arise from them due to their differing logics leading to tensions in the firm. Battilana & Dorado (2010) offer a good illustration of this in their study of a Latin American MFI, they found that there were intergroup tensions among the employees with different ideologies. Recent studies in other BOP markets also find that partnerships between different institutional types for example, between banks and MFIs, may result in conflicts due to their competing logics (Parekh & Ashta, 2018). These types of tensions bear resemblance to Smith, Gonin & Besharov 's (2013) conceptualization of belonging tensions which raises questions about identity in the social enterprise. For instance, questions about "who we are" and "what do we do" are raised since employees may identify more with either social or financial logic. However, Battilana et al., (2015) suggest that a solution to this may involve the assignment of responsibility for the social or financial activities to different employee groups. This could also apply in microfinance institutions with their diverse client groups and equally diverse employees based on socio-economic status. Thus, it could be beneficial to match employees and clients based on socio-economic status.

Furthermore, the commercialization of microfinance characterized by investor take-over of the microfinance industry has led MFIs to behave as banks (Ledgerwood & White, 2006). It has led to the increased demand for financial returns as investors and shareholders become residual claimants on the profits. A popular case is the Mexican MFI Compartamos which transformed to a bank and by launching an IPO made its early investors very wealthy (Mersland & Strøm, 2010; Ledgerwood & White, 2006). However, this raised some criticism as it unveiled the atrocious interest rates of almost 100 percent charged to its poor clients (Cull, Demirgüç-Kunt & Morduch, 2009). Moreover, increased commercialization prompted some formal banks to downscale and include microfinance products and services (Bell, Harper & Mandivenga, 2002). In their study on the impact of commercialization on MFI operations, D'Espallier et al. (2017) found an increase in average loan size following transformation from NGO to bank. This therefore suggests an upscaling in the clientele from the very poor to less poor. Some might argue that this outcome of commercialization could negate the fact that all microfinance institutions are social enterprises.

Furthermore, the proliferation of commercialization in microfinance has influenced some firms to prefer the financial goal over the social goal suggesting mission drift (Mersland & Strøm, 2010; Copestake, 2007). This implies that some MFIs tend to favour richer clients as opposed to poorer clients. It has been the subject of much debate in microfinance since it implies deviation from microfinance's social goal of extending loans to the unbanked poor (Hermes, Lensink & Meesters, 2011). Nevertheless, others argue that through serving rich clients, MFIs are able to provide loans to poorer clients (Mersland & Strøm, 2010), moreover, at lower interest rates. Additionally, mission drift may also result from employee activities in the field. Beisland, D'Espallier & Mersland (2019) find evidence of this where the employees are less likely to serve vulnerable, hence poorer clients. This phenomenon referred to as personal mission drift (Beisland et al., 2019). Other studies rather suggest that there is a tendency for employees to favour clients with similar social aspects to them, suggesting a form of discriminatory behaviour in employee interactions with clients (Labie et al., 2015).

3. Theoretical Framework

Similarity Attractiveness Paradigm: Homophily Effect

According to Byrne (1971), similarity-attraction can be said to occur when individuals in society seek association with groups or individuals with whom they share similarities. A similarity is the extent to which members of a group share personal or other social characteristics (Smith, 1998). Also referred to as the homophily effect, similarity-attractiveness is based on different social dimensions, such as age, gender, socio-economic status, and religion (McPherson, Smith-Lovin & Cook, 2001). When noticeably different groups exist, individuals tend to perceive members of their in-group as being similar to them and members of the outgroup as being dissimilar. The fact that individuals belong to the same group can thus be viewed as creating a sense of belonging, which in turn encourages cooperation. Therefore, similarity attractiveness illustrates how different social factors influence the behaviour of individuals.

Studies in different fields have shown that individuals tend to be attracted to those who are similar to them. For instance, donors and lenders have been found to prefer funding individuals with whom they can relate (Loeweinstein & Small, 2007;

Galak, Small & Stephen, 2011). In the sales field, Dwyer et al. (1998) find that sales personnel tend to prefer potential clients with whom they share similarities in gender or age. It has been suggested that similarities influence trust, communication and satisfaction (Rai et al., 2009; Smith, 1998; Byrne,1969). Therefore, in a firm setting, this preference for similar others may have an important influence on the relationship between employees and clients and, hence, on the performance of the firm.

In the BOP field, the tendency to prefer similar others has also been demonstrated. The unique characteristics of clients may require BOP firms to hire employees from the local community. For instance, in an initiative to extend financial services to people in rural areas of Uganda, local employees were found more suitable than non-locals due to their knowledge of the clients' beliefs and practices (Banthia et al., 2011). As part of this initiative, an employee-client gender pairing was proposed for activities that require face-to-face interaction. In another study, female clients in South Asia were found to prefer fellow female employees when receiving non-financial services (Ahmad, 2002). In addition, van den Berg, Lensink & Servin (2015) in their study of a Mexican MFI, found that the employees hired were usually of the same Catholic religion as the majority of their potential clients. This similarity facilitated communication and commitment to the MFI.

BOP firms do not serve a uniform socio-economic segment. Some focus more on 'lower poor' clients whereas others target more 'upper poor' clients (Labie et al., 2015; Armendariz & Szafarz, 2011). Besides that, MFI employees also constitute different socio-economic statuses (Siwale, 2016). Thus, socio-economic status presents a potential social dimension that can also impact the employee-client relationship in the BOP market since it is not necessarily homogeneous. For instance, in microfinance, it is reported that some employees tend to look down on poorer customers and develop pretentious attitudes when dealing with them (Jacobs & Franceys, 2008). Other studies find that employees tend to favour urban clients, who are usually less poor than rural ones (Beisland et al., 2019; Labie et al., 2015).

More generally, the aspect of socio-economic status has been widely explored in literature, moreover from different perspectives. From a cultural perspective, it is

viewed as an environment in which individuals are embedded which shapes how they perceive themselves as well as the nature of their relations with others (e.g., Stephens, Markus & Fryburg, 2012). Likewise, some studies focus on the consequences of belonging to a particular socio-economic group (Shah, Mullainathan & Shafir, 2012). Other scholars rather conceptualize socio-economic status as a rank-related construct (Kraus, Tan & Tannenbaum, 2013). Under this, comparisons of one's resources determine their rank in society relative to others. Thus, when individuals of different socio-economic status encounter each other, cross-class encounters are said to occur and individuals tend to respond to these differences in interpersonal and intrapersonal ways (Gray & Kish-Gephart, 2013).

Considering socio-economic similarities, the study of Byrne, Clore & Worchel (1966) was among the first, albeit in a student setting. Using one's likelihood of enjoying working with another as a measure of attraction, they found that individuals of similar socio-economic status were more attracted to each other than to dissimilar individuals. Related studies in the health sector also show that doctors prefer to treat high socio-economic status patients, who presumably are similar to them (Willems et al., 2005). This preference is attributed to the greater ease of communication that facilitates information exchange. Although the study seems to characterize all employees (doctors) as being of higher socio-economic status, it is nevertheless relevant to our study as it illustrates individual preferences for others of similar socio-economic status.

Employee-Client Matching

Based on the above discussion, the homophily effect can arise for two (not mutually exclusive) reasons. First, it could be that employees seek clients that are similar to themselves. Secondly, it could be that clients seek firms with employees that are similar to themselves. In this study we cannot distinguish between who seeks whom or not.

Employees can be categorised into two types and clients into two types. A firm could hire employees with high socio-economic status or low socio-economic status[1]. It could also serve clients with high socio-economic status or low socio-

[1]Microfinance practitioners inform that MFIs for instance those in Latin America often disburse large average loan sizes per client of $5000 or more, making clients to be wealthier than employees.

economic status. This therefore gives us four mutually exclusive employee-client categories, as shown in Table 1.

Regarding our categorization in Table 1, we cannot say in absolute terms, for instance, that in the HL category, employees are of higher status than clients. Rather, we mean that this is the case relative to the LL category. Put simply, this implies that the social distance between employees and clients is higher in HL category than in LL category. The same explanation applies for the LH category. Nevertheless, for the rest of the paper, we present as though the mismatch categories are in absolute terms.

Table 1. Summary of BOP Firm Employee-Client Matches

	High Socio-economic Status Clients	**Low Socio-economic Status Clients**
High Socio-economic Status Employees	High-Status Match (HH) **(1)**	Employees Serving Downwards (HL) **(2)**
Low Socio-economic Status Employees	Employees Serving Upwards (LH) **(3)**	Low-Status Match (LL) **(4)**

Notes: For the abbreviations HH, LH, HL and LL, the letter in the first position represents the employees' status, whereas the letter in the second position represents the clients' status

If the homophily effect is supported, we would expect to find more firms in quadrant (1) and quadrant (4). Thus, our first hypothesis is simply related to whether there is matching or not at the firm level.

> *Hypothesis 1: There is matching between employees and clients for MFIs based on similar socio-economic status.*

We might also observe matching where firms instruct their employees to match with similar clients. Presumably, firms would do this if there were a beneficial

effect of matching on performance outcomes, which brings us to our second hypothesis.

Employee-Client Matching and Its Impact on Performance

Employee-client matching is considered by some scholars to be a suitable management strategy for firms to achieve a competitive advantage (Morrison, 1992; Cox & Blake, 1991). The performance benefits of employee-client matching are mainly attributed to trust and more open communication between similar individuals (Avery et al., 2012). Most empirical studies on matching and performance have focused on demographic factors, like age (Dwyer et al., 1998), gender (Kochan et al., 2003; Dwyer et al., 1998), and race (Gonzalez, 2013; Avery et al., 2012; Kochan et al., 2003). We abstract from these studies and investigate the relationship between matching based on socio-economic status (as illustrated in Table 1), and employee productivity.

Empirical evidence shows that certain firms mainly in the sales and marketing field tend to incorporate a matching strategy. In a study on retail store productivity, Avery et al. (2012) find that racial-ethnic matches between employees and clients improve customer satisfaction and hence positively influence productivity. Another related study finds that employee-client matching based on race has a stronger influence on a firm's financial performance in culturally diverse communities compared to homogeneous ones (Gonzales, 2013).

In a study on gender and age matching, Dwyer et al. (1998) find that sales employees are attracted to clients that are similar to them. However, on closer analysis, it was found that age similarities have no significant impact on performance (productivity), whereas gender mismatches have a positive one (Dwyer et al.,1998). These mixed findings suggest that matches do not always have a positive influence on firm performance, that is, employee productivity.

Furthermore, aspects of employee-client matching also seem to be exhibited in areas dominated by strong cultural beliefs and practices. In a study of an Indian bank, Fisman et al. (2017) find that when a banking officer and a client belong to the same cultural group, there is increased credit access, repayment, and dispersion of loan size compared to when there are cultural differences. They attribute such

performance outcomes to greater ease in communication as well as the banking officer's ability to issue social sanctions on a culturally similar client.

The BOP literature that suggests employee-client matching also hints at its potential benefits. For instance, van den Berg et al. (2015) find default rates in MFIs to be lower when an employee is of the same gender or religion as the client. Beck et al. (2011) find that there is less likelihood that first-time clients will return for another loan when served by employees of the opposite gender. These studies suggest that matches based on other social dimensions such as socio-economic status are also likely to influence performance outcomes. Thus, focusing on employee productivity as our performance outcome of interest, we propose the second hypothesis of our study.

> *Hypothesis 2: MFIs with similar employee-client socio-economic matching have higher employee productivity than MFIs with dissimilar employee-client matching.*

Put differently, firms in quadrants (1) and (4) in Table 1 are predicted to have more favourable employee productivity because of the similar socio-economic match between employees and clients.

4. Data and Methods

Data and Sample

We use data from a secondary dataset extracted from compilations of risk assessment reports of five specialized microfinance rating agencies namely, Microfinanza, MicroRate, Planet Rating, CRISIL and M-CRIL. These rating agencies are internationally recognized and originally approved by the Consultative Group to Assist the Poor (CGAP), the microfinance branch of the World Bank. The rating reports consist of information about the MFI's governance, management, and financial and social operations. Appendix 1 shows the distribution of MFIs by country and region in our dataset. The final unbalanced panel sample consists of 474 MFIs for the period 1998 - 2015 with data on 1923 observations per variable used. Rated data is not randomly drawn from the population of MFIs, therefore there is a risk of sample selection bias. Nevertheless, rated data and the current dataset have been used in many influential MFI studies. For example, Garmaise & Natividad (2010) use it to examine the influence of

asymmetric information on the financial and operating activities of MFIs, Gutiérrez-Nieto & Serrano-Cinca (2007) use it to determine the factors affecting the rating of MFIs, whereas Randøy, Strøm & Mersland (2015) use it to show how entrepreneur CEOs affect MFIs. Moreover, increasing access to external funding is one of the motivations to attain a microfinance rating (Mersland & Strøm, 2010). This exposes rated MFIs to investors with either social or financial orientation. Therefore, our dataset includes MFIs with both very poor and less poor clients, this diversity in clientele being relevant for our study. Additionally, compared to other data sources which are self-reported, rated data is reported by a third party representing its authenticity.[2]

Matching Variables

To answer research question one, we need to create a set of variables that measure whether a firm belongs to quadrant (1), (2), (3) or (4) in Table 1. Also, these variables will enter as independent variables for research question two.

We use average loan size per client to proxy for the socio-economic status of the clients. This proxy is commonly applied in microfinance research to indicate the socio-economic segment that an MFI targets (Cull, Demirguz-Kunt & Morduch, 2007; Schreiner, 2002; Mersland & Strøm, 2010). Similarly, we use average salary per employee to proxy for the socio-economic status of the employees. As in other studies (for example, Abate, Borzaga & Getnet, 2014; Périlleux, Hudon & Bloy, 2012), this proxy is obtained by dividing personnel costs by the number of employees.

The firm has the following employee-client choices. It can hire employees of high socio-economic status or low socio-economic status, that is, high or low salary employees respectively. The assumption is that employees in the first group receive a higher salary than employees in the second group simply because of their higher socio-economic status or because they have higher education and/or experience. Additionally, the firm can choose to serve clients of high socio-economic status, or low socio-economic status, that is, high or low average loan size clients, respectively. The assumption is that clients in the first group receive a

[2] Although rated data is generally considered to be authentic, it tends to lack small saccos as well as bigger microfinance banks. It is also over-represented in the Latin American region. Ultimately, no dataset is a perfect representation pf the population and the rating dataset is no exception to this.

higher average loan size than clients in the second group (Cull et al., 2007; Schreiner, 2002).

The firms can now be classified into four mutually exclusive employee-client categories as indicated in Table 1: high-status match, low-status match, employees serving downwards and employees serving upwards. In our analysis, these are denoted by HH, LL, HL, and LH respectively.[3] To distinguish between high and low socio-economic status we apply yearly country median values of loan size and salary, that is, median values for each year per country where the MFI operates. Similar research by Beck et al. (2011) also uses median values to distinguish between high and low social distance between MFI employees and clients.
Thus, let $salary_{ijt}$ ($loansize_{ijt}$) denote average salary (average loan size) of employees (clients) from MFI i in country j in year t, and let $salary_{jt}^{M}$ ($loansize_{jt}^{M}$) denote the median value of these variables in country j in year t. The following dummy variables define the 4 categories:

$$\left.\begin{array}{l} HH_{ijt} = 1 \;\; if \; salary_{ijt} > salary_{jt}^{M} and \; loansize_{ijt} > loansize_{jt}^{M}, \;\; 0 \;\; else, \\ LL_{ijt} = 1 \;\; if \; salary_{ijt} < salary_{jt}^{M} \;\; and \; loansize_{ijt} < loansize_{jt}^{M}, \;\; 0 \;\; else, \\ HL_{ijt} = 1 \;\;\; if \; salary_{ijt} > salary_{jt}^{M} \;\; and \; loansize_{ijt} < loansize_{jt}^{M}, \;\; 0 \;\; else \\ LH_{ijt} = 1 \;\;\; if \; salary_{ijt} < salary_{jt}^{M} \;\; and \; loansize_{ijt} > loansize_{jt}^{M}, \;\; 0 \;\; else \end{array}\right\} \quad (1)$$

A firm is categorized as HH (high-status match) in year t if its employees' salary in year t is higher than the median salary of employees from the MFIs in the country in year t, and its clients' loan size in year t is higher than the median loan size of MFI clients in the country in year t, and so forth.

The Impact of Matching on Employee Productivity

To answer research question two on whether employee-client matching has an influence on MFI employee productivity, we use the variables defined above in the following fixed effects regressions:

$$employee\ productivity_{ijt} = \alpha_i + \beta_1 HH_{ijt} + \beta_2 LL_{ijt} + \beta_3 HL_{ijt} + \ controls + \varepsilon_{ijt} \quad (2)$$

[3] For each category, the letter in the first position represents the employee's socio-economic status and the letter in the second position represents the client's status. For example, in the HL category the employee is of high socio-economic status and the client is of low socio-economic status.

Greek letters denote coefficients to be estimated, $controls$ are different control variables (see Table 2 below), and ε_{ijt} is an error term assumed to be independent and identically distributed (iid). The matching coefficients of HH, LL, and HL are included; hence, the β's are the marginal effects relative to the left-out category, LH, that is, employees serving upwards.

In the above regression, our performance measure is $employee\ productivity$ defined as the number of clients served per MFI employee (MicroRate, 2014; Hudon & Traca, 2011). According to the MicroRate (2014) report, employee productivity is viewed as providing an institution-wide perspective on an MFI's performance as it considers all the MFI employees. Furthermore, since MFIs seek to expand their client base, employee productivity uniquely distinguishes MFIs from traditional banks, which aim to increase their portfolio size (MicroRate, 2014).

Control Variables

To control for macroeconomic institutional variables, the socio-economic statuses of the employees and clients are scaled by PPP-adjusted gross domestic product per capita (GDP per capita, PPP $).

Controls for MFI-specific variables are also considered. We control for MFI size and MFI age since bigger and older firms are expected to perform better than smaller and younger firms. Bigger firms perform better because of economies of scale, as has been confirmed in the microfinance industry (Hartarska, Shen & Mersland, 2013). Older firms perform better because of learning effects (Zamore, 2018). Size is proxied by the natural logarithm of a firm's total assets and age is the number of years that the firm has been in operation. Furthermore, the market of operation has the potential to influence employee productivity since rural clients are generally more dispersed and poorer than urban clients (Cull et al., 2009). Thus, a dummy variable indicating whether or not the MFI has some operations in urban

markets is included. The credit methodology of an MFI is likely to impact productivity and is denoted by a dummy variable indicating whether the main lending method is individual lending or group lending. We also control for the credit risk of the MFI. It is represented by a combined measure of PaR30 (likelihood of loss in the future) and a write-off ratio (unrecoverable loans written off), since these two variables together reflect a truer credit risk of an MFI than either of the two variables alone (Lensink, Mersland, Vu & Zamore, 2018). Finally, since the type of ownership of MFIs is not universal, we control for whether the MFI is incorporated as a shareholder or non-shareholder- owned firm. Consistent with other studies, we include this variable based on the fact that the type of ownership may account for variations in performance across firms (Williams & Nguyen, 2005).

A summary of the variables described above is presented in Table 2.

Table 2. Descriptive Statistics

Variables	Description	Mean	Std. Dev	Min	Max
Matching Variables: Equation (1)					
HH	High-status match	0.30	0.46	0	1
LL	Low-status match	0.28	0.45	0	1
HL	Employees serving downwards	0.21	0.41	0	1
LH	Employees serving upwards	0.21	0.40	0	1
Dependent Variable: Equation (2)					
Employee Productivity	Number of credit clients per MFI employee	118.24	74.91	9	396
Control Variables: Equation (2)					
Salary	Average salary: Total employee costs divided by number of MFI employees	1.13	1.46	0.04	8.92
Loansize	Average loan size: Total loan portfolio divided by number of credit clients	0.17	0.37	0.00	2.57
Risk	Total risk of the MFI (par30+writeoff)	0.08	0.10	0	0.60

MFI-size	Natural Logarithm of Total assets from the balance sheet	2309.77	5631.14	7.84	37640.87
MFI-age	Years since establishment of the MFI	12.61	8.94	1	45
Urban market	1 = MFI has some operations in urban market, 0 = otherwise	0.88	0.31	0	1
Shareholder	1= shareholder owned, 0 = otherwise	0.37	0.48	0	1
Creditmethod	1= individual lending as main method, 0= otherwise	0.57	0.50	0	1

Note: All monetary variables are deflated by GDP per capita, PPP $

Table 2 presents means, standard deviations and the description of variables used to answer the two research questions. All monetary variables are dollarized and real in the sense that they are deflated by nominal GDP per capita and PPP-adjusted. Thus, for example, the mean value of salary reflects that the average annual salary of an employee in our sample is 13 per cent higher than the PPP-adjusted GDP per capita in the country. On the other hand, the mean value of loan size is 17 per cent of the GDP per capita PPP-adjusted in the country. The descriptive statistics on the original data showed some unreasonable figures, therefore, the data has been winsorized at the 1 per cent and 99 per cent cut-off levels. Using the original data does not change the qualitative results.

5. Results

Research Question 1: Existence of Socio-economic Matching

To determine whether MFIs match their employees and clients (research question 1), we performed a one-way analysis of variance. Table 3 below displays the result of the test. For reference we also repeated the means of the matching variables from Table 2. Specifically, we let these means (frequencies) be denoted by μ. In the case of no matching of employees and client of similar socio-economic status, we expect the distribution of HH, LL, HL, LH to be random, with $\mu = 0.25$ for each category. In the presence of such matching, however, we expect the frequency of HH and LL to be significantly higher than 0.25.

Table 3. Socio-economic Matching Frequencies

	HH	LL	HL	LH
μ	0.30***	0.28***	0.21***	0.21***
	(0.01)	(0.01)	(0.01)	(0.01)
H_0: μ=0.25	0.000001	0.002	0.00003	0.000002
Observations	1923	1923	1923	1923

Notes: HH represents high-status match; LL, is the low-status match; HL, is employees serving downwards; and LH, is employees serving upwards. The figures of μ show probability values of the test μ = 0.25. Standard errors are in parentheses. *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

From the table, we see that about 58 per cent of the sample is a similar socio-economic match, that is, *HH* or *LL*. Moreover, we find that the frequency μ is significantly different from 0.25 at every conventional significance level. We conclude that the data support Hypothesis 1, that there is matching of employees and clients based on similar socio-economic status. This result is very robust to alternative classifications. For instance, if the categories comparing *salary* and *loansize* were instead defined relative to their yearly world medians, that is, the median values in each year based on all countries in the dataset, then the sorting according to similar socio-economic status result would remain intact. Therefore, the data strongly corroborates that there is similar socio-economic employee-client matching in MFIs.

Research Question 2: Socio-economic Matching and Its Impact on Employee Productivity

Having established that there is a clear tendency for employee-client matching based on similar socio-economic status, we turn to the immediate question of how it impacts employee productivity. Columns (1) and (2) of Table 4 report the fixed-effect results for equation (2) using employee productivity as the dependent variable.[4] As can be seen, column (1) shows the results without the control variables, while column (2) shows the results with control variables. We include a

[4] We also ran similar regressions on other MFI performance variables such as profit, financial revenue and portfolio yield but did not find any significant effects. Therefore, we consider productivity the most relevant in this study since matching is most likely to influence it and to a lesser extent profit, financial revenue and portfolio yield which are more dependent on other market factors.

country-specific time trend in all regressions. Initial regressions show that error terms are heteroskedastic; therefore, cluster-robust standard errors are reported, as per Arellano (1987).

Table 4. Performance Regressions

	Employee Productivity	
	(1)	(2)
HH	10.35***	11.16***
	(2.94)	(2.80)
LL	11.60***	7.263**
	(3.73)	(3.31)
HL	24.27***	21.12***
	(4.30)	(4.16)
Salary		-3.47
		(4.26)
Loansize		-64.73***
		(10.45)
MFI Size		11.35***
		(3.15)
MFI Age		-5.649
		(3.72)
Urban market		-14.54*
		(8.47)
Risk		-59.95***
		(15.87)
Shareholder-owned		-2.296
		(15.87)
Creditmethod		-4.39
		(5.20)
Country specific time trend	Yes	Yes
R^2	0.18	0.25
Observations	1923	1923
MFIs	474	474
H_0: LL=HL	0.0008	0.0002
H_0: HH=HL	0.0006	0.009

Notes: Standard errors in parentheses. *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.H_0: LL=HL indicates values of the probability that the coefficient of LL is not different from HL. H_0: HH=HL indicates values of the probability that the coefficient of HH is not different from HL.

Comparing the models with and without control variables, we see that the qualitative results are the same with respect to our variables of interest, that is, the category dummies. We observe that loan size, urban market, MFI size and risk are

significant and the R-squared is higher in the regression with controls. Interestingly, salary (the control variable) is not significantly associated with productivity.

Regarding our variables of interest, that is, HH, LL and HL, recall that all coefficients must be interpreted in relation to the left-out category, that is, LH: employees serving upwards. Regarding regressions (1) and (2), recall that if Hypotheses 2 is to be supported then the coefficients on HH and LL must be positive, and each must be larger than HL. In regressions (1) and (2) we see that the coefficients on HH and LL are significantly larger than the coefficient on LH; however, the coefficient on HL is significantly larger than the coefficients on LL and HH. Thus, we do not find support for the hypothesis that similar employee-client matching based on socio-economic status is associated with higher performance. On the contrary, dissimilar matching of the HL type, where high-status employees are matched to low-status clients, is the best type of match in terms of employee productivity. Put differently, having low-status employees serve high-status clients is the least favourable match for employee productivity whereas having high-status employees serve low-status clients is the most favourable match.

Robustness Checks

The different employee-client classifications may have different meanings in different geographical locations due to culture differences in dimensions like power distance and socio-economic differences. Power distance measures individual behaviour and regard for those in positions of authority (Hofstede, Hofstede & Minkov, 2005; Hofstede, 2001). High power distance suggests that inequalities are more normalized in these societies such that individuals at lower levels of the hierarchy tend to look up to those in higher levels (Hofstede et al., 2005; Hofstede, 2001). This suggests that our matching variables may have different meaning in different cultural settings. We expect the cultural differences to be much less within more narrowly defined regions compared to the whole sample. Moreover, differences across regions are of interest in itself. Thus, we split our sample into 5 regions based on the World bank's categorization, that is, Latin America and the Caribbean (LAC) , Sub-Saharan Africa (SSA), Europe & Central Asia (ECA), South-East Asia & the Pacific and Middle East (SEAP) and

North Africa (MENA). Table 5 reports the results of separate regional productivity regression analyses.

Table 5: Regional Performance Regressions

VARIABLES	(1) LAC	(2) SSA	(3) ECA	(4) MENA	(5) SEAP
HH	11.94***	3.703	-0.379	10.07	35.69**
	(4.132)	(7.333)	(4.723)	(15.95)	(17.09)
LL	10.41**	0.214	-8.462*	-11.41	47.61*
	(4.545)	(12.46)	(4.839)	(14.15)	(25.27)
HWLL	21.70***	-9.212	10.60*	23.72	57.24***
	(5.613)	(14.87)	(5.517)	(15.05)	(16.64)
Salary	-4.755	1.387	5.389	-7.582	10.05*
	(5.689)	(5.785)	(3.795)	(15.94)	(5.106)
loansize	-122.7***	-22.72**	-38.61***	-542.7**	-68.55
	(31.17)	(9.421)	(12.07)	(245.5)	(48.31)
MFI Size	17.10***	23.54***	3.417	8.660	-0.561
	(4.820)	(8.656)	(3.011)	(17.64)	(7.838)
MFI Age	-6.825**	-20.50	-8.495	5.112	-3.439
	(2.968)	(22.13)	(11.35)	(4.533)	(3.266)
Urban market	-5.938	-28.02**	-1.529		-43.01
	(9.183)	(12.45)	(9.527)		(47.04)
Risk	-28.58	-33.04	-41.87	-124.7***	-308.0
	(23.49)	(22.25)	(38.67)	(34.69)	(224.6)
Shareholder-owned	11.19	-13.11	2.381	-33.95	-59.16**
	(24.81)	(16.25)	(14.45)	(22.89)	(21.44)
Creditmethod	1.839	-35.70**	-3.641		3.464
	(5.155)	(15.29)	(10.30)		(9.106)
Constant	108.2***	151.8	44.12*	42.71	253.6***
	(35.36)	(111.6)	(24.71)	(62.20)	(47.72)
Year dummies	Yes	Yes	Yes	Yes	Yes
R^2	0.157	0.308	0.374	0.700	0.535
Observations	1,053	378	305	94	93
MFIs	225	119	82	22	26

Notes: Standard errors in parentheses. *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively. LAC represents Latin America & the Caribbean, SSA represents Sub-Saharan Africa. ECA represents Europe & Central Asia, MENA represents the Middle East & North Africa and SEAP represents South East Asia & Pacific.

From our robustness checks in Table 5, we find that in Latin America & Caribbean as well as South East Asia & Pacific regions, qualitatively, our results from the full sample in Table 4 are maintained. However, we observe that coefficients of the categorical variables are higher in the South East Asia & Pacific region.

Specifically, we find that in these regions relative to our reference category (LH), the best performing category variable is HL. For Europe & Central Asia, Sub-Saharan Africa and Middle East and North Africa, no category variables are significant at the 5% significance level.

We suggest possible reasons for our results in the next section.

6. Discussion

The results of the study provide strong support for Hypothesis 1, which predicts that socio-economic similarity matches between employees and clients of MFIs are more likely to occur in BOP markets. In line with the homophily effect, our results can be attributed to the behavioural tendency of individuals to prefer others that are similar to them (Byrne,1971; McPherson et al., 2001). Previous studies suggest that it is easier for individuals to relate to similar others since it facilitates communication and the development of trust (Rai et al., 2009; Jones, Moore, Stanaland & Wyatt, 1998). Thus, similarities between individuals can be considered important in establishing an employee-client relationship.

In this study, the basis for our argument is an individual-level theory with the expectation that benefits associated with employee-client similarities will be reflected in employee productivity. However, our results are puzzling as the matching categories do not provide support for higher productivity outcomes where there are employee-client similarities relative to dissimilarities. The results seem to suggest that the firm has no strong incentive to engage in similarity matching particularly if it can choose its clients and employees freely. If an MFI targets poorer clients, employee productivity will be higher if the firm hires high-status employees. For high-status clients, employees of similar high status are preferable. Thus, high-status employees appear to be the most preferable regardless of the clients' status.

Employees of higher status tend to be more educated (Siwale, 2016; Adler & Snibbe, 2003) and hence more skilled in problem solving, communication, and interpersonal relations (Bruns, Holland, Shepherd & Wiklund, 2008). These skills are likely to facilitate employees' interactions with potential clients and hence increase productivity. Moreover, it is generally accepted that individuals from low income segments tend to have less education levels and fewer skills than

individuals from higher income segments (SadreGhazi & Duysters, 2009; Chhibber & Nayyar, 2008; Prahalad & Hart, 2002). This may explain why the match categories with high-status employees (that is, HL and HH) were seen to outperform those with low-status employees (that is, LL and LH). Moreover, irrespective of the client type that the MFI is targeting, in terms of productivity, our results suggest that it is better to have high status employees. For example, this implies that even MFIs required to meet a predetermined number of clients or serve as many poor clients as possible in a financially sustainable way, should choose high status employees.

Furthermore, an important control variable in our study is salary. After all, higher salary levels should, at least in theory, boost productivity (Akerlof & Yellen, 1986). Thus, it can be argued that the significantly positive productivity effects found for the HH and HL matches are driven by higher salaries. Including the salary control variable enabled us to better interpret the results on the matching variables. Yet, despite the theoretical assumption, the salary variable was insignificant in our full sample as well as in the regional regression analysis. Paying higher salaries in MFIs seems not to enhance productivity, all else equal.
From the productivity/economics perspective, our finding on the second research question that high status employees are more productive than low status employees irrespective of client type, may seem close to a tautology- 'more productive employees are more productive'. However, referring to the homophily effect and similarity attractiveness paradigm, it is not obvious that high status employees would be the most productive irrespective of the clients served. Indeed, as we argue in the theoretical framework, if similarity attractiveness effects are strong, low status employees may be more productive in serving low status clients. An interpretation of our findings is that the productivity effect dwarfs the similarity effect. Nevertheless, based on results of the second research question, one may question why MFIs then match on the LL category? After all, we find that productivity would have been high if the MFI had selected high-status staff. This suggests that there are other benefits (not captured in the labour productivity measure) to having a low status similarity match.

Our finding that firms serving BOP markets, in our case MFIs, will benefit from hiring people from a high socio-economic status regardless of their clients' status is somewhat worrying. It suggests that these firms are less likely to recruit from

the poorer communities. Although offering employment is secondary to microfinance's social goal, ignoring it, may reinforce labour market inequalities in these BOP markets. To cope with this, such firms could benefit from adopting status enhancing mechanisms for potential local staff. This could be done through appropriate training, salary, and other status-enhancing mechanisms. Moreover, the reader should keep in mind that the microlending business involves complex operations including calculation of risk. In less competence-demanding BOP markets, the importance of hiring high-status employees may be lower.

Our results from robustness checks allude to potential regional differences on the impact of the employee-client socio-economic categories. In Latin America & the Caribbean and South East Asia & Pacific regions, our results are the same as in the full sample with the HL category (i.e., employees of higher status than clients) being the best performing in terms of productivity. Several reasons could explain this. Firstly, these regions tend to be characterised by a high-power distance culture (Sweetman, 2012; Gomez & Sanchez, 2005). This implies that vast inequalities among individuals are considered normal in the society such that lower status individuals look up to higher status individuals. Secondly, the regions tend to be characterized by high income disparities relative to others (Wu & Chang, 2019; Amarante, Galván & Mancero, 2016). Such income disparities imply differences in accessibility to health services and education opportunities, hence reinforcing socio-economic differentials (Kraus et al., 2013). Therefore, these reasons may explain why high-status staff are likely to perform better regardless of the client's socio-economic status.

On the contrary, findings from Sub-Saharan Africa, Europe & Central Asia and the Middle East & North Africa suggest that employee-client socio-economic matching does not matter for productivity. These regions tend to have lower power distance in comparison to Latin America & the Carribean and South-East Asia & Pacific. This suggests that there is less inequality among individuals and may therefore explain why socio-economic status similarities or the lack thereof do not seem to matter for performance. Additionally, differences in levels of institutional development may offer some explanation, for instance, there is less dependence on relationship-based interactions in relatively strong institutional environments (Boehe & Cruz, 2013). This suggests that individual outcomes may be less influenced by status similarities or the lack thereof in more developed regions like

Europe and Central Asia. Furthermore, the high degree of diversity between and within countries in some regions like Sub-Saharan Africa and Middle East & North Africa (Green, 2013; Alesina et al., 2003) suggests that other status related aspects may be at play such as tribe, clan or religion.

Finally, aspects of commercialization of microfinance may be informative to the overall discussion. Studies show that the commercialization of microfinance firms has led to operational changes such as shifts in lending methods from group to individual lending (de Quidt, Fetzer & Ghatak, 2018) and increase in average loan sizes disbursed to clients (D'Espallier et al., 2017). This begs the question as to whether organizations change their employees when they commercialize. Also, do they then match employees to meet their new target clients? If so, this may reinforce the need for high status employees. Although a few scholars have suggested that commercialization may lead to human resource changes (Ledgerwood & White, 2006), the extent to which commercialization is related to employment practices and who to hire is intriguing. In our study, we do not distinguish between employee-client categories before and after commercialization. Extending our analysis in this direction is an interesting topic for future research.

7. Conclusion

The objectives of this study were twofold. One was to determine whether there are employee-client matches based on socio-economic status in BOP firms. The other was to determine whether similar socio-economic matching yields favourable employee productivity.

The results show that microfinance institutions tend to match their employees and clients based on socio-economic status. 58 per cent of the employee- client categorizations were based on similarity whereas 42 per cent were based on dissimilarity. High socio-economic status employees were found more suitable for employee productivity both when targeting high and low socio-economic status clients. The least favourable category was employees of low socio-economic status serving clients of high socio-economic status. Nevertheless, additional results suggest the impact of the socio-economic matching categories on productivity is dependent on the region.

One of microfinance's specificities includes the important role that employees play as mediators in achieving firm objectives (Siwale & Ritchie, 2012). Yet, the underlying factors within loan officer- client categorizations remain scarcely explored. Our study attempts to contribute to this by exploring the compatibility of loan officers and clients based on their socio-economic status and how this impacts productivity. This study suggests that focus should not merely be on the establishment of the relationship but also, on understanding how social aspects between loan officers and clients that influence the development of such relationships hence, performance.

Although the BOP market has garnered a lot of attention, there is still scarcity of human resource related research. Our study attempts to fill this gap in mainly two ways. First, it contributes to matching-related studies in general human resource literature by exploring the concept in the BOP context. Secondly, our study may have implications for the employment strategy of microfinance institutions. Particularly, since high-status employees appear to be in high demand, managers have to think strategically about the matching of clients and employees as its impact may vary by geographical location. Due to cultural and institutional differences in the regions, it is necessary for each MFI to carefully consider the that type of employees that they need in order to be effective in their context. In some contexts, they may perform better by hiring higher status staff whereas in other contexts the employees' status may not matter. This may be relevant especially for firms participating in local engagement through hiring locals among their staff.

Moreover, microfinance institutions represent just one example of social enterprise thus, the employment strategy among different social enterprises may differ. For example, some social enterprises tend to have both volunteers and paid employees among their staff (Doherty et al., 2014). A question may therefore be raised as to whether a selection criterion for each employee type should be in place? Also, in other BOP enterprises, whether it matters what type of clients the firm is targeting, i.e., paying clients or beneficiaries. Our study therefore opens the avenue for future research that seeks to explain such human resource related nuances in social enterprises. Moreover, it also raises questions as to whether upcoming issues in

social entrepreneurship such as commercialization may influence the firms' employment strategy.

Future studies can also consider specific individual-level socio-economic information on the employees and clients to establish whether their findings differ from those of our study which employs firm level data. Other related aspects of socio-economic status for example, the education level, tribe, clan of the employees and clients, can also be investigated in future BOP employee-client matching-related studies. Likewise, investigating other mechanisms inherent in employee-client interactions beyond socio-economic status and across different regions based on cultural dimensions like power distance could be informative.

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Appendix

Distribution of MFIs by Country and Region

#	Country	No. of MFIs	#	Country	No. of MFIs	#	Country	No. of MFIs
1	Angola	1	37	Argentina	2	69	Albania	3
2	Benin	8	38	Bolivia	18	70	Armenia	6
3	Burkina Faso	9	39	Brazil	25	71	Azerbaijan	9
4	Burundi	6	40	Chile	2	72	Bosnia and Herzegovina	12
5	Cameroon	6	41	Colombia	14	73	Bulgaria	3
6	Chad	2	42	Costa Rica	3	74	Croatia	1
7	Comoros	1	43	Dominican Republic	8	75	Georgia	8
8	Congo	1	44	Ecuador	24	76	Italy	3
9	Dem Rep Congo	2	45	El Salvador	8	77	Kazakhstan	8
10	Ethiopia	10	46	Guatemala	10	78	Kyrgyzstan	9
11	Gambia	1	47	Haiti	3	79	Moldova	2
12	Ghana	6	48	Honduras	18	80	Montenegro	2
13	Guinea	3	49	Jamaica	1	81	North Macedonia	1
14	Kenya	18	50	Mexico	32	82	Romania	7
15	Madagascar	4	51	Nicaragua	19	83	Russia	17
16	Malawi	3	52	Paraguay	2	84	Serbia	2
17	Mali	11	53	Peru	47	85	Tajikistan	11
18	Mozambique	1	54	Trinidad & Tobago	1	86	Turkey	1
19	Niger	9		**SEAP**		87	United Kingdom	1
20	Nigeria	7	55	Afghanistan	2	**Total MFIs**		**650**
21	Rwanda	13	56	Bangladesh	2			
22	Senegal	12	57	Cambodia	14			
23	Sierra Leone	2	58	China	5			
24	South Africa	4	59	India	32			
25	South Sudan	1	60	Indonesia	4			
26	Tanzania	9	61	Mongolia	4			
27	Togo	5	62	Nepal	5			
28	Uganda	25	63	Pakistan	2			
29	Zambia	3	64	Philippines	22			
	MENA		65	Samoa	1			
30	Egypt	6	66	Sri Lanka	2			
31	Jordan	3	67	Timor-Leste	1			
32	Lebanon	2	68	Viet Nam	4			
33	Morocco	8						
34	Palestine	3						
35	Tunisia	1						
36	Yemen	1						

Notes: LAC represents Latin America & the Caribbean, SSA represents Sub-Saharan Africa. ECA represents Europe and Central Africa, MENA represents the Middle East & North Africa and SEAP represents South East Asia & Pacific.

Chapter 2: Does it (Re)pay to be Female? Considering Gender in Microfinance Loan Officer-Client Pairs*

Abstract

This paper examines the effect of the gender combination of client-loan officer pairs on loan repayment in an Ecuadorian microfinance institution. We show that among the four possible client-loan officer gender pairs i.e., female client-female loan officer, female client-male loan officer, male client-male loan officer and male client-female loan officer, the most favorable pairs in terms of repayment are those with female loan officers whereas the least favorable are those with male loan officers. We also show that repayment is even further enhanced for all client-loan officer pairs when the client's previous loan officer was a woman. Our findings point to relational differences between male and female loan officers when interacting with microfinance clients, which is also highlighted by our qualitative insights from the field.

Keywords: Microfinance; client-loan officer pair; gender; repayment performance

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1. Introduction

In microfinance, the relationship between a loan officer and a client is often underlined as being critically important. Compared to other financial firms, microfinance clients tend to be informationally opaque; thus, many microfinance institutions (MFIs) rely on a business model that emphasizes a close and trust-based loan officer-client relationship (Afonso, Morvant-Roux, Guérin, & Forcella, 2017) as it facilitates both the ex ante screening and ex post monitoring stages.

In this paper, we focus on the influence of the client-loan officer gender pairing on repayment outcomes. The high focus on female clients by MFIs makes it interesting to study the impact of the gender combination of the client-loan officer pair on loan repayment. Many studies in microfinance have examined the influence of clients' gender on loan repayment and find higher repayment rates for female clients than for their male counterparts (D'Espallier, Guérin, & Mersland, 2011; Morduch 1999). The effect of loan officers' gender on loan repayment has also been examined, but with contradictory findings depending on the context. For example, Beck, Behr, and Guettler (2013) find that female loan officers in an Albanian bank exhibit better loan portfolio quality and have a 4-5 percent lower likelihood of default than men, whereas van den Berg, Lensink, and Servin (2015) find evidence to the contrary in a Mexican MFI.

In addition to considering the gender of both parties in the relationship separately, one should also take the gender combination of the pair into account. Arguments drawn from the similarity-attraction paradigm (Byrne, 1971), or from self-identity and self-categorization theories (Tajfel, 1972; Turner, 1982), suggest that same-sex pairs are better able to build trust, which may translate to better performance, compared with opposite-sex pairs[1]. However, evidence from empirical studies is far from unanimously supportive of better performance in same-sex pairs.

This paper therefore seeks to determine the impact of client-loan officer gender combinations on repayment performance in MFIs. Accordingly, we look at four different pairs: male client-female loan officer, female client-female loan officer, female client-male loan officer, and male client-male loan officer. In a further

[1] In our study, we use the terms 'gender' and 'sex' interchangeably.

analysis on clients who have experienced a change of loan officer, we also examine the potential moderating effect of the gender of the client's previous loan officer. In doing so, we seek to obtain a clearer view of whether clients respond to a change of loan officers' gender in terms of loan repayment.

Our results show that female client-female loan officer and male client-female loan officer pairs exhibit the highest performance in terms of loan repayment. They highlight that loan repayment is not necessarily better in same-sex pairs. Additional findings highlight the importance of considering the effect of the gender difference between two successive loan officers on clients' loan repayment. We find that, rather than consistency in relational style, having previously dealt with a female loan officer strengthens repayment performance even further, and this finding seems to hold for all client-loan officer pairs. A client's experience with a female loan officer at any point in time i.e., either currently or previously, is thus beneficial for loan repayment.

This paper contributes not only to the microfinance and financial inclusion literature, but also to the broader development literature. After all, financial inclusion is recognized to act as a facilitator for 5 out of the 17 Sustainable Development Goals, such as poverty, gender, hunger, growth and infrastructure (Mader, 2018). This study also contributes to the gender literature. To our knowledge, it is one of the first to focus on the effect of the gender combination of the client-loan officer pair on loan repayment. Since the relationship between the client and the loan officer is the basis of the business model of most MFIs, the gender of both parties is of high importance to better understand the outcome of lending transactions. Yet, existing studies in microfinance have focused on either the client's gender (Boehe & Cruz, 2013; D'Espallier et al., 2011) or the loan officer's gender (Beck et al., 2013; van den Berg et al., 2015) and hardly any on the gender combination of the client-loan officer pair with the exception of Blanco-Oliver, Reguera-Alvarado, and Veronesi (2021). To our knowledge, this paper is the first to focus on the effect of gender difference in successive loan officers on clients' loan repayment. Since empirical studies have shown numerous negative effects of loan officer turnover (Canales & Greenberg, 2016; Servin, Lensink, & van den Berg, 2011), it is essential to examine in which conditions such a turnover induces the least negative outcome. We show that one of these conditions is probably related to the loan officer's gender. In doing so, we also contribute to the

human resource literature in the financial sector. Finally, our paper contributes to the literature on similarity-attractiveness and other social categorization theories.

2. Theoretical framework

2.1 The importance of the loan officer-client relationship in microfinance

To understand the advantages of high-quality relationships between clients and loan officers, the social embeddedness framework developed by Granovetter (1985) is useful. Social embeddedness is defined as 'the degree to which commercial transactions take place through social relations and networks of relations that use exchange protocols associated with social, non-commercial attachment to govern business dealings' (Uzzi 1999, p. 482). Social embeddedness appears to be critical in encouraging trust and discouraging improper behaviors (Granovetter, 1985; Uzzi, 1999). We focus in this paper on relational embeddedness, namely, 'personal relationships people have developed with each other through a history of interactions' (Nahapiet & Ghoshal, 1998, p. 244).

In banking, the importance of the relationship between lenders and borrowers has its roots in relationship lending. Relationship lending is a lending technique mostly used in SME financing (Uchida, Udell, & Yamori, 2012) and in the funding of other informationally opaque clients. By developing a close, long-term, trust-based relationship with borrowers, the lender, and particularly the loan officer, is able to collect and produce qualitative information that can only be acquired through multiple contacts with the borrower and their entourage, such as family, community, suppliers, and so on (Berger & Udell, 2002; Moro & Fink, 2013; Rajan, 1992). This so-called 'soft information' helps increase credit availability for small firms (Elsas & Krahnen, 1998; Scott & Dunkelberg, 1999), while decreasing moral hazard (Paravisini & Schoar, 2012) and the risk of loan default.

In microfinance, individuals and microenterprises are generally informationally opaque and have little or no collateral to pledge (Serrano-Cinca, Gutiérrez-Nieto, & Reyes, 2016). It is therefore crucial for the loan officer to establish a close relationship with the client. To this end, microfinance has built its business model on relationship lending (Afonso et al., 2017). Since microfinance loans are characterized by short maturity and high repayment frequency, the extent of the interactions between the client and the MFI is substantial. There is some evidence

that, in microfinance, the length and the intensity of the relationship between the lender and the borrower improves access to credit (Behr, Entzian, & Güttler 2011), reduces the time of the loan approval process (Behr et al., 2011), and decreases default rates (Schrader, 2009). However, for all the advantages that it may bring, a close loan officer-client relationship may also have some negative effects, such as the screening out of other qualified clients and risks of fraud (Beisland, D'Espallier, & Mersland, 2019; Godfroid, 2019).

Loan officers represent the main interface between the client and the MFI (Canales & Greenberg, 2016). Microfinance loan officers are required to visit clients at their home, to interact with them frequently, and to develop contacts with their community in order to collect and produce soft information. Beyond their role of advisors, microfinance loan officers also have to act as debt collectors (Siwale & Ritchie, 2012), and this main difference between microfinance and banking makes trust-based client-loan officer relationships even more important in the microfinance industry than in the traditional banking sector.

Two studies on the consequences of microfinance loan officer turnover for clients demonstrate the importance of the benefits brought by a close relationship between both parties. Drexler and Schoar (2014) show that when a loan officer is replaced, their clients are less likely to get new credit either because they are less likely to request it or because they are more likely to be denied access to follow-up credit. In addition, such clients are also more likely to default. Along similar lines, Canales and Greenberg (2016) show that clients are more likely to miss a payment when a loan officer is rotated during the course of a loan. However, the same authors find that the effect of loan officer turnover on loan repayment is moderated by the consistency in the relational style adopted by the succeeding loan officer. Based on these studies and on the relationship-lending as well as microfinance literature, we argue that a change of loan officer may affect clients' loan repayment, particularly when the successive loan officers are of different genders. As we will explain in the next subsection, male and female loan officers may adopt different attitudes and behaviors throughout the lending process.

2.2 The effect of the gender of the client-loan officer pair on clients' loan repayment

To better comprehend the influence of the gender combination of a client-loan officer pair in terms of clients' loan repayment, two main strands of literature can be drawn on: the literature on gender differences in terms of personality traits, attitudes, and behaviors; and the literature on similarity attraction. It should be noted that the first strand may help to explain the effect that the loan officer's gender or the client's gender in a client-loan officer pair on clients' loan repayment, while the second one may be used to examine the gender combination of the client-loan officer pair.

2.2.1 Gender differences. The psychology literature has highlighted several differences in attributes and attitudes based on gender. While early scholars attributed these differences to biological factors, social role theorists have recently argued that these differences should rather be explained by gender-role expectations induced by the division of labor (Akinola, Martin, & Phillips, 2018; Putrevu, 2004). By being exposed to such gender role expectations from an early age, women end up adopting more 'communal' values – qualities associated with social relationships with others such as helpfulness, kindness, and sympathy – whereas men mostly adopt 'agentic values' – qualities associated with goal achievement such as assertiveness and aggressiveness (Rudman & Phelan, 2008). Women also tend to avoid competitive situations (Gneezy, Leonard, & List, 2009; Gupta, Poulsen, & Villeva, 2013) and to be less aggressive in negotiations (Amanatullah & Morris, 2010). However, this does not mean that women are poor negotiators. Indeed, the outcome of a negotiation may also be linked to traits that are stereotypically feminine, such as good listening skills (Kray, Galinsky, & Thompson, 2002), and to the higher tendency of women to behave ethically (Kray & Kennedy, 2017).

The above gender differences may explain why male and female clients adopt different attitudes and behaviors toward loan repayment. In microfinance, there is a lot of evidence showing that female clients are more likely to repay their loans than male clients (D'Espallier et al., 2011; Yunus, 1999), but the reasons behind this remain unclear (Aggarwal, Goodell, & Selleck, 2015). According to some scholars, women tend to manage their loans better than men (D'Espallier et al.,

2011) and to use or invest the money they receive more carefully (Todd, 1996), whereas males are more likely to become over-indebted (Schicks, 2014). Others argue that women tend to be more honest (Armendáriz & Morduch, 2005; Boehe & Cruz, 2013), but this argument is sometimes challenged and not necessarily confirmed empirically (Godquin, 2004). Women may also face greater difficulties in finding a credit alternative than men, forcing them to repay their loans in order to obtain subsequent loans from the same MFI (Armendáriz & Morduch, 2005; Boehe & Cruz, 2013). Finally, some scholars argue that the higher propensity of female clients to repay their loans comes from their higher sensitivity to intimidation (Goetz & Gupta, 1996; Karim, 2008). Based on the above findings, we suggest the following hypothesis:

Hypothesis 1: Client-loan officer pairs with a female client exhibit better performance in terms of clients' loan repayment than those with a male client.

Similarly, gender differences may explain why female and male loan officers in banking may adopt different attitudes and behaviors, leading them to have different relational styles when dealing with clients. Some scholars argue that women are more restrictive than men when granting loans to new clients (Bellucci, Borisov, & Zazzaro, 2010), based on the assumption that women are more risk averse (Charness & Gneezy, 2012; Croson & Gneezy, 2009), even if this assumption is today being called into question (Nelson, 2015). But are female loan officers better than male loan officers in terms of their client's loan repayment? While some studies address this particular question, the findings are contradictory. Beck et al. (2013), examining a large commercial bank in Albania serving micro, small, and medium enterprises, show that defaults are lower for loans screened and monitored by female loan officers than for loans screened and monitored by male loan officers, probably because female loan officers are better able to foster trust with their clients. On the other hand, van den Berg et al.'s (2015) findings based on data from a Mexican MFI reveal that male loan officers have loan portfolios with lower defaults because of men's higher authority to enforce loan repayment, particularly over female clients. Adding to this, Blanco-Oliver et al. (2021) show that loan portfolio risk increases when the representation of women in loan officer positions of MFIs is higher.

Since the literature is not clear on the effect of the loan officer's gender on clients' loan repayment but two studies on this topic seem to hinge towards better performance for male loan officers, we suggest the following hypothesis:

Hypothesis 2: Client-loan officer pairs with a male loan officer exhibit better performance in terms of clients' loan repayment than those with a female loan officer.

2.2.2 Similarity attraction. Similarity-attraction theory states that individuals are attracted to others with whom they share similarities (Smith, 1998). The similarity-attraction effect implies that individuals favor 'similar others' in terms of social attributes over 'dissimilar others'. Based on the similarity-attraction paradigm, relational demography theory argues that similarities among people may affect work-related outcomes (Foley, Linnehan, Greenhaus, & Weer, 2006; Sacco, Scheu, Ryan, & Schmitt, 2003). Specifically, similarities are believed to foster communication (Avery, McKay, Tonidandel, Volpone, & Morris, 2012) and trust, leading to an improvement in performance (Lincoln & Miller, 1979; Tsui, Egan, & O'Reilly, 1992). Social identity and social categorization theories can also explain why demographic similarities affect performance outcomes. These theories argue that individuals have the tendency to create classifications about themselves and others based on social categories such as gender, age, and religion (Foreman & Whetten, 2002; Tajfel & Turner, 1986), and that they derive a sense of belonging from the group that they belong to (Hornstein, 1976). Social identity is strengthened by making favorable attributions to the in-group members and unfavorable attributions to the out-group members (Kramer, 1991).

Numerous empirical studies on the effect of gender in pairs have led to contradictory results. Some studies lend support, at least partially, to the similarity-attraction paradigm, social identity theory, and self-categorization theory. In an ultimatum game conducted in a laboratory, Eckel and Grossman (2001) show that agreements are easier to reach in female-female pairs, but that men are more likely to accept an offer from a woman than from a man. In a trust game, Slonim and Guillen (2010) show that when individuals are given the choice of selecting a partner to whom they will give money, they prefer selecting someone of the same sex.

On the other hand, the results of other studies run counter to the predictions of the similarity-attraction paradigm, social identity theory, and self-categorization theory. Ben-Ner, Kong, and Putterman (2004) show that in a dictator game, women tend to give less money to other women than to men or to a recipient whose gender is unknown. In a two-person bargaining game, Sutter, Bosman, Kocher, and van Winden (2009) find a higher level of competition leading to lower efficiency in same-sex pairs.

In microfinance, Beck, Behr, and Madestam (2018) find that new clients associated with a loan officer of the opposite sex tend to receive smaller or shorter loans as well as less favorable conditions in terms of interest rates. Moreover, they are less likely to request a second loan, this effect being stronger when they are associated with loan officers who are not used to working with clients of the opposite sex. However, loan arrears do not seem to be affected. Ahmad (2002) shows that female clients tend to prefer association with female employees when receiving both financially and non-financially related services from an NGO in India. Similar findings were obtained from a study of MFIs in Uganda offering financial services to rural women (Banthia, Greene, Kawas, Lynch, & Slama, 2011). Blanco-Oliver et al. (2021) examine multiple MFIs and show that while a higher proportion of female loan officers in a MFI leads to higher loan portfolio risk, this effect is negatively mediated by the percentage of female borrowers in the MFI. Nevertheless, unlike our study, they do not directly examine the effect of a client-loan officer pair on the clients' repayment.

Based on the similarity-attraction theory and on empirical findings in microfinance, we may argue that female clients prefer dealing with female loan officers and that male clients prefer dealing with male loan officers, and that same-sex client-loan officer pairs engender a higher level of trust. We therefore suggest the following hypothesis:

Hypothesis 3: Same-sex client-loan officer pairs exhibit better performance in terms of clients' loan repayment than opposite-sex pairs.

As in Beck et al. (2018), we examine how loan repayment may be affected by the gender combination of the borrower-loan officer pairs. However, our study differs from theirs in several aspects. While Beck et al. (2018) are particularly interested

in first-time borrowers, we also consider borrowers in successive loan cycles, namely the different loans that a particular client has received since their entry in the MFI. This is necessary to examine the potential moderating effect of the gender of the client's previous loan officer on the relationship between the gender combination of the client-loan officer pair and loan defaults. Moreover, Beck et al. (2018) mainly focus on opposite-sex client-loan officer pairs while we consider same-sex pairs as well. Beck et al. (2018) also adopt the loan officer's point of view by suggesting that the loan officer's previous experience with clients of the opposite sex acts as a moderator in the relationship between the gender composition of the client-loan officer pairs and several outcomes such as loan approvals, credit conditions, and so on. By contrast, we adopt the client's point of view as we want to determine whether loan repayments are affected when a client is rotated from one loan officer to another loan officer of the opposite gender. Since the client-loan officer relationship is key to fostering trust between the two parties, examining how clients are affected by a change of loan officer appears to be compelling and constitutes another contribution to the study conducted by Beck et al. (2018).

In this context, examining the effect of a difference in the gender of successive loan officers makes sense. Indeed, we can view gender as a proxy for relational style regardless of the theoretical position we take: the one adopted by early scholars that men and women have 'different orientations toward interpersonal relationships' or the one adopted by more recent, social role scholars that men and women differ in the way they 'construe themselves in relation to others' (Curhan, Neale, Ross, & Rosencranz-Engelmann, 2008, p. 194). We can thus rely on Canales and Greenberg's (2016) arguments that the negative effect of loan officer turnover on clients' loan repayments is weakened when successive loan officers adopt consistent relational styles. Therefore, we argue that it be may easier for clients to trust a loan officer of the opposite sex when their previous loan officer was also of the opposite sex, and that this higher trust may lead to fewer loan defaults. We therefore suggest the following hypothesis:

Hypothesis 4: Clients' repayment is enhanced when two succeeding loan officers are of the same sex.

3. Data and variables

3.1 Data collection

We draw on a unique dataset from Banco D-Miro, an MFI offering financial services to the underprivileged in Ecuador. As a fully licensed bank, Banco D-Miro has to comply with all regulatory requirements as any other commercial bank in Ecuador. With an average portfolio at risk of around 5% (except in 2016 after Ecuador was hit by an earthquake) and over 50% percent female clients, Banco D-Miro, like other MFIs, is characterized as seeking to achieve social objectives while maintaining financial sustainability. Banco D-Miro consists of 13 branches located in the coastal regions in Ecuador. The D-Miro loans analyzed in this study are individual loans running from 6 to 36 months with a monthly repayment frequency and offered to both men and women who run a business.

In what follows, we determine the impact of the different gender combinations of the client-loan officer pair on client loan default and whether a change in gender between two successive loan officers matters for this relationship.

Our database consists of quarterly client-loan officer observations starting in the second quarter of 2012 and ending in the third quarter of 2016.

Our final sample consists of an unbalanced panel of 727,563 quarterly client-loan officer observations with which to conduct our econometric specifications.

Further information regarding data collection can be found in the Appendix.

3.2 Dependent Variable

3.2.1 Default_days. This variable[2] corresponds to the number of days of defaults for client i in quarter t. In other words, it refers to the number of days a client extends beyond the predetermined due date. It acts as an indicator of the risk associated with a certain loan as more days of default signify higher credit risk.

[2] A full distribution graph of the dependent variable both unconditional and conditional on default is presented in the supplementary material to this paper.

Indeed, when the days of default are increasing, the risk that the client will not repay at all is also increasing.[3]

3.3 Independent Variables

The dummy variables *Femaleclient-femaleloanofficer, Femaleclient-maleloanofficer, Maleclient-femaleloanofficer,* and *Maleclient-maleloanofficer* are our main independent variables representing the different client-loan officer gender pairs. That is, *Femaleclient-femaleloanofficer* (*Maleclient-maleloanofficer*) takes the value of 1 if a female (male) client is associated with a female (male) loan officer and 0 otherwise, while *Femaleclient-maleloanofficer* (*Maleclient-femaleloanofficer*) takes the value of 1 if a female (male) client is associated with a male (female) loan officer. We perform econometric specifications on all gender combinations of client-loan officer pairs except the male client-male loan officer pair, which we consider to be the reference pair to avoid the dummy variable trap. Thus, the impact of the different client-loan officer pairs on repayment is analyzed in comparison to the male client-male loan officer pair.

3.4 Moderating role of previous loan officer's gender

We test the potential moderating effect of the gender of the client's previous loan officer since we argue that the gender of the two successive loan officers a client has dealt with matters to understand loan repayment. This moderator, denoted by Female previouslo, is a dummy variable that takes the value of 1 if the previous loan officer was female and 0 otherwise. The moderator variable is included in our analysis as an interaction term with the gender combination of the client-loan officer pair. We thus consider the gender of the current and previous loan officer as a proxy for relational style.

3.5 Control variables

In our analyses, we control for the effects of different client and loan officer characteristics as well as firm-related and loan-related variables. That is, we control for clients' age, marital status, and education level.

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[3] Number of days in default is a dynamic variable that accumulates over the loan cycle. So, if clients on the first repayment are 2 days late but then repay, the 2 days sticks with them. Then, if the clients, in the next repayment, pay on time, they still have 2 days accumulated in default. So, on the third repayment if they pay 4 days late, they will now have 6 days in default and so on

We also control for the loan amount received by the client. Indeed, the loan amount may differ according to the clients' gender, as female clients tend to ask for or obtain smaller loans (Agier & Szafarz, 2013) than their male counterparts. This variable was rescaled and transformed to logarithm in our econometric analyses. Additionally, we include a control variable for the current loan cycle of the client. It indicates the number of loans that a particular client has received since starting to contract with the MFI. These controls are necessary to isolate the influence of the gender combination of the client-loan officer pairs on days in default from a gender-differential in loan-amount and loan cycle.

Regarding loan officers, we control for their age and level of education. In the moderator analysis, we also control for the rate at which the loan officer is re-assigned to and from clients, denoted by 'percentage incoming clients per loan officer' and 'percentage outgoing clients per loan officer', respectively. 'Percentage of incoming clients per loan officer' is the rate at which a loan officer obtains new clients from another loan officer in the MFI whereas 'Percentage of outgoing clients per loan officer' is the rate at which a loan officer transfers clients to another loan officer or has client drop-out.[4] These client changes among loan officers are not part of the firm's policy and may instead occur due to employee turnover or client drop-out as opposed to formal rotations that arise from the need to prevent unacceptable behavior from loan officers such as discrimination and corruption. The aim here is to control for the likely impact of the dynamics of change within the client-loan officer pair on loan repayment.

Finally, branch dummies have been included as control variables. Indeed, it can be observed in the field that default may depend on managerial practices used in an

[4] Let us consider a loan officer who has 100 clients in a given quarter (T). In the next quarter (T+1), 5 of their clients are leaving the MFI D-Miro and 10 will stay in D-Miro but will be served by a new loan officer. At the same time, this loan officer gets 3 new clients in T+1 and 4 clients that were already clients of D-Miro but were served by another loan officer. In this example, the " Percentage of incoming clients per loan officer" rate in quarter T will be of 10/100= 10% since 10 clients are rotating away from this loan officer but stay in D-Miro. The "Percentage of incoming clients per loan officer" for quarter T+1 will be : 4/92= 4.3%, with 92 in the denominator coming from 100-5-10+3+4.

MFI branch. More especially, two branches of D-Miro situated in the same geographical area may have different default rates.

Descriptive statistics are presented in the Supplementary Material of this paper.

4. Method

To determine the impact of the client-loan officer gender combination on repayment and the moderating role of the gender of the previous loan officer, we first perform random effects regressions where the number of days in default is regressed against the different client-loan officer gender pairs in combination with all controls discussed above. Subsequently and in order to further test the consistency of our results, a number of other estimation methods (Negative Binomial, Tobit, Probit, Cox Hazard) have been performed that take into account specific features surrounding the distribution of our dependent variable (see Supplementary Material). It should be noted that the panel structure has been considered in all types of estimations. Further description about respective estimation methods appears in the Supplementary Material.

5. Results

Results obtained from the analysis of the effect of the gender combination of the client-loan officer pairs on the number of days of loan defaults, using random effects regressions, are presented in Table 1. Model 1 tests whether female clients are associated with lower default days irrespective of the loan officer's gender. Model 3 tests whether female loan officers are associated with lower default days irrespective of the client's gender. Model 5 includes both loan officer's and client's gender dummies thus investigating whether female clients have lower default days, holding constant loan officer gender and vice versa. Models 2, 4 and 6 take the interaction terms of loan officer and client gender into account and thus more directly test the hypotheses evoked in our paper on the client-loan officer gender pairs. Model 2 includes the client's gender dummy alongside client-loan officer pair interactions while Model 4 includes the loan officer's gender dummy alongside client -loan officer pair interactions. Model 6 only includes the interaction terms of client and loan officer gender without any clients' or loan officers' gender dummy.

Table 1: Effect of Gender Combination of the Pair on Days of Default – Random Effects

VARIABLES	(1) Default_days	(2) Default_days	(3) Default_days	(4) Default_days	(5) Default_days	(6) Default_days
Female client	-4.435***	-3.519***			-4.345***	
	(0.733)	(0.761)			(0.731)	
Female loanofficer			-4.645***	-3.576***	-4.637***	
			(0.230)	(0.344)	(0.230)	
Femaleclient female loanofficer		-5.382***		-1.933***		-8.901***
		(0.300)		(0.597)		(0.765)
Maleclient female loanofficer		-3.621***				-3.621***
		(0.349)				(0.349)
Femaleclient maleloanofficer				-0.884		-3.519***
				(0.587)		(0.761)
Client age	2.094***	2.083***	2.087***	0.492***	2.083***	2.083***
	(0.031)	(0.031)	(0.031)	(0.024)	(0.031)	(0.031)
Single client	12.09***	12.07***	11.23***	4.114***	12.07***	12.07***
	(0.729)	(0.728)	(0.714)	(0.547)	(0.728)	(0.728)
Client no education	-21.87***	-21.84***	-21.84***	-17.81***	-21.86***	-21.84***
	(2.426)	(2.421)	(2.422)	(1.811)	(2.421)	(2.421)
Client primary education	-13.12***	-13.20***	-13.19***	-8.772***	-13.20***	-13.20***
	(0.754)	(0.752)	(0.753)	(0.563)	(0.752)	(0.752)
Loan cycle	0.268***	0.270***	0.240***	-5.865***	0.272***	0.270***
	(0.080)	(0.080)	(0.080)	(0.085)	(0.080)	(0.080)
Log approved amount	-3.263***	-3.296***	-3.216***	-15.93***	-3.293***	-3.296***
	(0.205)	(0.205)	(0.204)	(0.205)	(0.205)	(0.205)
Loan officer secondary education	6.417***	6.040***	6.042***	5.977***	6.036***	6.040***
	(0.263)	(0.263)	(0.263)	(0.261)	(0.263)	(0.263)
Loanofficer college education	1.558***	0.239	0.238	2.151***	0.242	0.239
	(0.374)	(0.379)	(0.379)	(0.381)	(0.379)	(0.379)
Loanofficer age	0.679***	0.691***	0.691***	0.211***	0.690***	0.691***
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Constant	-61.65***	-59.65***	-61.96***	102.3***	-59.18***	-59.65***
	(2.291)	(2.294)	(2.248)	(2.086)	(2.291)	(2.294)
Observations	668,355	668,355	668,355	668,355	668,355	668,355
Number of clients	86,305	86,305	86,305	86,305	86,305	86,305
Branch controls	YES	YES	YES	YES	YES	YES

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

From Table 1, Model 1 and Model 3 show respectively that female clients exhibit lower default days than male clients irrespective of loan officers' gender and that female loan officers exhibit lower default days than their male counterparts irrespective of client's gender. Model 5 confirms such enhanced repayment performance of female clients, controlling for gender of the loan-officer and vice versa.

The other models exploiting the interaction-term analyses (Model 2 and Model 4) consistently point towards a lower likelihood of default in female client-female loan officer pairs, male client-female loan officer pairs and female client-male loan officer pairs, compared to the benchmark-category which is the male client-male loan officer pair. Furthermore, the magnitude of the observed coefficients suggests enhanced repayment in both pairs with female loan officers compared to both pairs with male loan officers.

Model 6 taking up all interactions simultaneously further confirms superiority of female loan officer pairs compared to pairs with male loan officers.

Based on these findings, we reject Hypothesis 1, namely, that pairs with female clients are necessarily better in terms of repayment than pairs with male clients. We find that, although female clients exhibit better repayment when ignoring the loan officer's gender, the combination male client-female loan officer tends to outperform the combination female client-male loan officer. Furthermore, the results also show that pairs with female loan officers are consistently the best in terms of repayment, in opposition with Hypothesis 2. Our results thus differ from those of van den Berg et al. (2015), who conclude that male loan officers obtain lower default rates from both female and male clients but align with Beck et al. (2013) who also observe lower defaults for loans screened and monitored by female loan officers.

Finally, when economically interpretating our coefficients in Model 6, our results highlight that opposite-sex pairs are more likely to exhibit fewer days of default than same-sex pairs composed of a male client and a male loan officer; that is, 3

days less for opposite-sex pairs compared to male client-male loan officer.[5] Therefore, in this case, the arguments developed by the similarity-attraction paradigm, social identity theory, and self-categorization theory as predicted in Hypothesis 3 do not seem to hold.

Model 6 allows us to present a ranking of the different client-loan officer pairs in terms of repayment, which we summarize in Table 2. It can be seen that the best performing pairs, in order of ranking, are female client-female loan officer, male client-female loan officer, female client-male loan officer, and male client-male loan officer. We conducted a Wald test after the random effects regressions in Model 6 which confirms that the coefficients for the different pairs are statistically different (Chi2 (2) = 329.31; Prob>Chi2=0.0000).

Table 2: Hierarchy of the Gender Pairs in terms of Repayment

	Female loan officer	Male loan officer
Female client	1	3
Male client	2	4

Scale: 1=the best gender pair and 4=the worst gender pair

Turning towards control variables, our results highlight that older clients tend to exhibit lower default rates. Additionally, single clients and more educated clients tend to exhibit a higher number of default days. This may be partly explained by the fact that more educated individuals are more empowered and aware of their rights and hence cannot easily be coerced to repay their loans in the event of a default. The client's loan cycle and the approved loan amount also matter in terms of repayment as a higher loan cycle is associated with a lower number of default days. This suggests that clients in higher loan cycles and who receive a higher loan amount are more capable of repaying their loans. The intuition for this result is that

[5] We acknowledge that this effect may appear small. Nevertheless, any increase in default days is an indicator of increased risk in non-repayment.

MFIs prefer to keep offering credit to clients who are able to repay. By the same token, since numerous MFIs use the technique of progressive lending, one would expect a larger loan to be associated with a lower number of days of default which is indeed confirmed in our findings.

Results from alternative estimation methods that account for specific features of the distribution of our dependent variable are presented in the Supplementary Material.

5.1 Moderating role of previous loan officer gender

In Table 3, we report the results from the random effects models when considering the potential moderating effect of the gender of the client's previous loan officer.

Table 3: Moderating Effect of the Gender of the Previous Loan Officer

VARIABLES	(1) Default_days	(2) Default_days	(3) Default_days	(4) Default_days
Femaleclient femaleloanofficer	-8.901***	-6.896***	-8.994***	-8.671***
	(0.765)	(0.898)	(0.855)	(0.847)
Femaleclient maleloanofficer	-3.519***	-4.128***	-2.354***	-4.877***
	(0.761)	(0.812)	(0.881)	(0.813)
Maleclient femaleloanofficer	-3.621***	-3.514***	-3.561***	-1.723***
	(0.349)	(0.574)	(0.574)	(0.637)
Femaleclient femaleloanofficer_femalepreviouslo		-3.465***		
		(0.829)		
Femaleclient maleloanofficer_femalepreviouslo			-4.237***	
			(0.719)	
Maleclient femaleloanofficer_femalepreviouslo				-6.133***
				(0.960)
Client age	2.083***	-0.089***	-0.089***	-0.090***
	(0.031)	(0.033)	(0.033)	(0.033)
Single client	12.07***	6.419***	6.394***	6.378***
	(0.728)	(0.749)	(0.749)	(0.749)
Client no education	-21.84***	-7.746***	-7.774***	-7.829***
	(2.421)	(2.569)	(2.569)	(2.569)
Client primary education	-13.20***	-5.856***	-5.868***	-5.849***
	(0.752)	(0.770)	(0.770)	(0.770)
Loan cycle	0.270***	-0.659***	-0.657***	-0.661***
	(0.080)	(0.137)	(0.137)	(0.137)
Log approved amount	-3.296***	-5.421***	-5.474***	-5.474***
	(0.205)	(0.463)	(0.463)	(0.463)
Loanofficer secondary education	6.040***	6.281***	6.544***	6.277***
	(0.263)	(0.461)	(0.461)	(0.460)
Loanofficer college education	0.239	0.714	0.444	0.722
	(0.379)	(0.663)	(0.664)	(0.663)
Loan officer age	0.691***	0.232***	0.241***	0.229***
	(0.019)	(0.035)	(0.035)	(0.035)
Percentage of incoming clients per loan officer		2.222***	2.326***	2.231***
		(0.529)	(0.529)	(0.529)

Percentage of outgoing clients per loan officer		-0.400	-0.375	-0.386
		(0.733)	(0.733)	(0.733)
Constant	-59.65***	54.07***	54.45***	55.17***
	(2.294)	(4.089)	(4.089)	(4.094)
Observations	668,355	56,697	56,697	56,697
Branch controls	YES	YES	YES	YES

Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, femalepreviouslo is a dummy variable of value 1 when the client's previous loan officer was female and 0 when male.

Results from Table 3 show that the interaction terms are negative and significant for the female client-female loan officer, female client-male loan officer and male client-female loan officer pairs, respectively. In other words, any client-loan officer gender pair active in a given quarter within the observed sample period seems to benefit from having dealt with a female loan officer in a previous instance in terms of enhanced repayment. These results are therefore not in support of Hypothesis 4 predicting that a 'consistent relational style' proxied by the same gender of successive loan officers, would foster enhanced repayment. Rather we find that any client-loan officer pair, including those with a male loan officer, display better repayment numbers when the client has previously transacted with a female loan officer. Consistency in relational style, therefore, seems to be less of a predictor for repayment than the actual gender of the loan officer. In other words, a client's experience with a female loan officer at any point during their time in the MFI (i.e., previously, or currently) has the potential to lead to lower default.

Since both male and female clients paired with a female loan officer report stronger repayment rates, our results further emphasize the role of female loan officers in ensuring favorable repayment.

6. Conclusion

The business model of most microfinance institutions is based on privileged relationships between loan officers and clients. Yet, despite this, the client-loan officer relationship remains poorly documented in the development and the microfinance literature. This study thus aims to bring a deeper understanding of such a relationship.

We focus in this paper on the gender combination of the client-loan officer pairs and its impact on clients' loan repayment. While the impact of gender on defaults has been analyzed for both parties separately in microfinance, the studies

conducted by Beck et al. (2018) and Blanco-Oliver et al. (2021) are, to our knowledge, the sole ones to examine the effect of the gender of both parties concurrently on different lending outcomes.

Beck et al. (2018) find in their study that first-time borrowers associated with a loan officer of the opposite sex receive less favorable credit conditions in terms of loan size and interest rates than their counterparts associated with a loan officer of the same sex, but they do not find any significant impact on clients' defaults. However, given that clients are less likely to default when they develop a trust-based relationship with their loan officer, and that the level of trust partially depends on the combination of the pair in terms of gender, we argue that the gender of both parties of the relationship should affect clients' loan repayment. We also go one step further by arguing that this effect may be moderated by the gender of the client's previous loan officer in relation to their current loan officer.

Using a database of 727,563 quarterly client-loan officer observations from an Ecuadorian MFI, our results show that contrary to our expectations, the effect of the gender combination of the pair on defaults does not depend entirely on the level of trust induced by similarities in terms of gender. Even if our findings show that the best-performing pair in terms of repayment is the female client-female loan officer pair, they also show that the least-performing pair is the male client-male loan officer pair, which seems to contradict the similarity-attraction paradigm (Byrne, 1971).

Along the same lines, our findings from discussions with loan officers in Banco D-Miro[6] reveal that the client-loan officer relationship between two women involves trust and empathy. Our results also show that female loan officers are better in terms of inducing repayment than male loan officers. Some loan officers talk about the existence of 'chemistry' in describing their relationship with clients. Moreover, female loan officers tend to 'understand the situation of female clients better' than male loan officers. Finally, female loan officers, in contrast to their

[6] During a seven-day visit to Banco D-MIRO in September 2019, we conducted informal discussions with different staff members in order to gain more insights on the quantitative findings. This entailed 4 group discussions with about 5 to 11 loan officers in a group, from which the loan officers were encouraged to give their opinions. Some discussions were also held with key informants like the CEO, 2 branch managers and heads of some departments like credit, HR, and recovery, to mention a few.

male counterparts, tend to discuss topics that go beyond the professional relationship, and they find it easier to do so with another woman as they both share the same types of concerns. Indeed, women have the 'tact to start broader conversations' with their clients, particularly with other women. When presented with male clients, female loan officers can also perform relatively well in terms of loan monitoring and debt recovery since women 'are careful not to rush male clients'. On the contrary, the relationship between a male client and male loan officer was described as being very 'volatile' as there tends to be more friction and conflict between two men. Some even described the relationship as being 'colder' compared to that between two women. Additionally, and this may be an effect of the national culture of Ecuador, male clients behave differently when interacting with female loan officers than with male ones. Indeed, male clients 'like to receive the attention of women' and view their relationship with women as 'flirting'.

A subsequent interaction analysis shows that repayment is further enhanced when the client's previous loan officer was also a woman. And this result seems to hold for all client-loan officer pairs, thus including those with a male loan officer. Consistency in relational style, therefore, seems to matter less for repayment than the gender of the previous loan officer, and a previous female loan officer is clearly beneficial for repayment performance. Taken together with our baseline results, we conclude that a client's experience with a female loan officer at any point during their time in the MFI (i.e., previously, or currently) has the potential to lead to lower default.

Our study contributes to the literature in several ways. First, it contributes to the development literature by focusing on financial inclusion which is a major facilitator of achieving some of the UN sustainable development goals. Furthermore, the development literature arguably attaches insufficient importance to the relationship between clients and loan officers which is at the core of microfinance and tends to examine the two parties of the lending relationship separately. Second, it contributes to the banking and microfinance literature by looking at the potential moderating effect of the gender of the previous loan officer on the relationship between the gender combination of the client-loan officer pair and loan repayment. To our knowledge, this is the first paper to consider such a moderating effect. Third, it contributes to the extensive literature on gender pairing

by supporting the empirical studies that show that attraction to individuals of the same gender is far from generalizable across different contexts.

A practical implication of our findings mainly concerns MFIs that have set up a rotation policy or are confronted with a high staff turnover. Indeed, we suggest that managers of such organizations consider both the gender of the loan officer who left or is rotated and the gender of the client when reassigning clients to another loan officer. More precisely, we argue for pairing female clients with female loan officers. Nevertheless, MFIs should also improve male loan officers' interactions with clients of both gender. Furthermore, the results also suggest the importance for MFIs to focus on employee attributes such as empathy and conversational skills, particularly since the job of loan officer requires a close interaction with clients.

Further research could consider the role that national culture plays in influencing the client-loan officer relationship in terms of repayment performance by, for instance, considering differences in impact due to aspects such as gender-related beliefs and practices. Additionally, client perspectives on the different gender combinations of the client-loan officer pair could shed more light on how they influence repayment outcomes. Finally, it would be interesting to consider the degree of risk aversion of the loan officer and study its relation with the loan officer's gender.

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Appendix

Appendix 1: Data collection - More details

It is valuable to note that the studied MFI does not employ a formal rotation strategy for loan officers. Nevertheless, in the event of loan officer turnover, a reassignment of loan officers to other clients may be possible. It is also worth mentioning that the average length of the relationship between the client and the firm is 6.2 quarters. As far as loan allocation to loan officers is concerned, Banco D-Miro practices 'zonification' which involves random assignment of a branch's loan officers to individual geographical zones where they can serve clients. This aspect therefore hinders any potential endogeneity resulting from reversed causation or self-selection in the sense that loan officer allocation is irrespective of gender, age or experience.

Appendix 2: Method -More details

To obtain the final sample, we combine three datasets from Banco D-Miro, two containing information on loan officers and one containing information on clients (individual characteristics, financial history, and loan characteristics including repayment history). In addition to the loan officer-client rotation data, our sample also includes turnover information on loan officers (voluntary and involuntary turnover), which is also useful for studying the effect of the change of loan officers on clients. Anonymity of data has been ensured in compliance with the General Data Protection Regulation (GDPR).

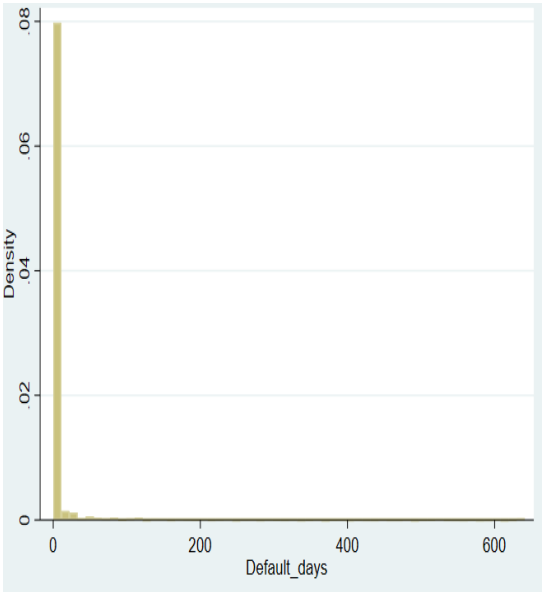
We dropped all observations for which we did not have any information regarding the loan officer responsible for the loan. This lack of information seems to have arisen from potential inputting errors by the MFI and not because of drop-out of clients in default. Although debt collection is often a task assigned to the managing loan officers, some MFIs, such as the one we study, also hire employees appointed to manage debt collection for clients in extreme defaults. Even in the rare event that the firm allocates such clients to 'debt-holder' loan officers, the data is still present in our dataset. It is worth noting, however, that because of regulatory issues, Banco D-MIRO charges none or very low financial penalties. Rather, the assessments from 'debt-collector' officers may result in defaulting clients being denied future loans from Banco D-Miro or any other formal financial institution

since their credit rating is affected. We also cleaned our dataset and trimmed outliers in the top 5% for the outcome variable.

Supplementary Material

Figure A1: Distribution graphs of dependent variable both unconditional and conditional on default

Plot showing zero default days



Plot showing default days greater than zero

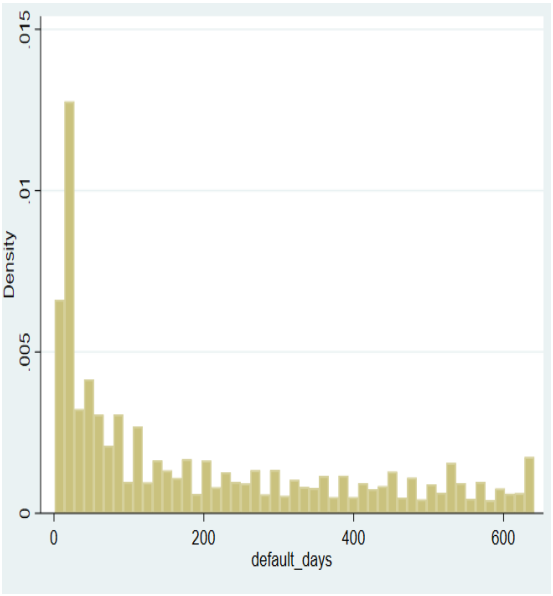


Table A1: Descriptive Statistics

Variable	Description	Obs	Mean	Std.Dev.	Min	Max
Default_days	Number of days in default	691,530	24.87	95.20	0	641
Failure	1= if the client has been in default, 0 otherwise	691,530	0.13	0.33	0	1
Femaleclient femaleloanofficer	1=female client and female loan officer, 0 otherwise	676,057	0.28	.45	0	1
Femaleclient maleloanofficer	1=female client and male loan officer, 0 otherwise	676,057	0.30	0.46	0	1
Maleclient femaleloanofficer	1=male client and female loan officer, 0 otherwise	676,057	0.20	0.40	0	1
Maleclient maleloanofficer	1=male client and male loan officer, 0 otherwise	676,057	0.22	0.42	0	1
Female loan officer	1=female loan officer ,0=male loan officer	676,057	0.48	0.50	0	1
Female client	1=female client,0=male client	727,563	0.58	0.49	0	1
Female previouslo	1=female as previous loan officer, 0=male	63,255	0.41	0.49	0	1
Client age	Age of client (years)	727,563	41.51	11.50	17.42	79.20
Single client	1=single client, 0=otherwise	727,563	0.51	0.50	0	1
Client no education	1= client with no education degree and 0 otherwise	727,563	0.02	0.15	0	1
Client primary education	1= client with primary education and 0 otherwise	727,563	0,38	0.49	0	1
Client high education	1= client with secondary or postsecondary education and 0 otherwise	727,563	0.6	0.49	0	1
Approved amount	Approved loan amount ($)	727,563	2,552.79	2388.13	73.51	20,004
Loan cycle	Loan cycle of client	727,563	3.13	2.70	1	28
Loan officer age	Age of the loan officer	676,056	34.38	5.85	23	55
Loan officer secondary education	1= loan officer with secondary education, 0 otherwise	676,056	0.21	0.40	0	1
Loan officer college education	1= loan officer with college education, 0 otherwise	676,056	0.06	0.23	0	1

Loan officer university education	1= loan officer with university education, 0 otherwise	676,056	0.74	0.44	0	1
Percentage of incoming clients per loan officer	Rate at which clients are assigned to loan officers	727,497	0.04	0.14	0	0.98
Percentage of outgoing clients per loan officer	Rate at which clients leave loan officers	727,497	0.04	0.15	0	1

Table A1 presents descriptive statistics of our sample under study. It shows that the average number of days of default for the sample is around 25 days with a high standard deviation and that 12.5% of our observations exhibit a default. It also shows that 28% of our sample represents female client-female loan officer pairs, 30% female client-male loan officer pairs, 20% male client-female loan officer pairs, and 22% male client-male loan officer pairs. In terms of client demographics, the average age of the client is 41 years and 51% of the clients are single. Furthermore, on average, clients are in their third loan cycle. The average approved loan amount is $2,552. In terms of loan officer characteristics, the average age of the loan officer is 34 years and 48% of the loan officers are female. Additionally, the average rate of rotation of clients to and from a loan officer is 4%.

In Table A2, we present the sample characteristics across several default categories. Table A3 exhibits univariate t-tests for the equality of univariate means for the independent and control variables between clients with no default and clients with default, and between clients with default of less than 30 days and clients with default of 30 days or more.

Table A2: Sample characteristics across several default categories (no default – default; default under 30 days- default longer than 30 days).

		(1)	(2)	(3)	(4)
		No default	**Default**	**Default < 30 days**	**Default > 30 days**
Client age	*obs.*	605,399	86,131	24,107	62,024
	mean	41.96	38.99	39.531	38.777
	st.dev.	11.49	11.39	11.59	11.305
	min.	17.41	18.08	18.084	18.138
	max.	73.75	75.70	72.142	75.704

Single client	*obs.*	605,399	86,131	24,107	62,024
	mean	0.494	0.609	0.571	0.625
	st.dev.	0.499	0.488	0.495	0.484
	min.	0	0	0	0
	max.	1	1	1	1
Client no education	*obs.*	605,399	86,131	24,107	62,024
	mean	0.023	0.019	0.020	0.018
	st.dev.	0.149	0.135	0.141	0.133
	min.	0	0	0	0
	max.	1	1	1	1
Client secondary education	*obs.*	605,399	86,131	24,107	62,024
	mean	0.392	0.323	0.347	0.314
	st.dev.	0.488	0.467	0.476	0.464
	min.	0	0	0	0
	max.	1	1	1	1
Client high education	*obs.*	605,399	86,131	24,107	62,024
	mean	0.585	0.658	0.632	0.668
	st.dev.	0.492	0.474	0.482	0.471
	min.	0	0	0	0
	max.	1	1	1	1
Loan cycle	*obs.*	605,399	86,131	24,107	62,024
	mean	3.311	2.344	2.579	2.253
	st.dev.	2.794	1.972	2.131	1.899
	min.	1	1	1	1
	max.	28	26	26	23
Approved amount	*obs.*	605,399	86,131	24,107	62,024
	mean	2681.25	2100.11	2372.411	1994.272
	st.dev.	2494.12	1771.82	1998.919	1663.301

	min.	123.94	123.94	123.94	145
	max.	20003.55	19989.97	19989.97	19985.14
Loan officer secondary education	*obs.*	603,951	64,404	23,856	40,548
	mean	0.198	0.246	0.231	0.255
	st.dev.	0.399	0.431	0.421	0.436
	min.	0	0	0	0
	max.	1	1	1	1
Loan officer college education	*obs.*	603,951	64,404	23,856	40,548
	mean	0.056	0.061	0.060	0.061
	st.dev.	0.230	0.239	0.238	0.239
	min.	0	0	0	0
	max.	1	1	1	1
Loan officer university education	*obs.*	603,951	64,404	23,856	40,548
	mean	0.746	0.693	0.710	0.684
	st.dev.	0.435	0.461	0.454	0.465
	min.	0	0	0	0
	max.	1	1	1	1
Loan officer age	*obs.*	603,951	64,404	23,856	40,548
	mean	34.36	34.48	34.453	34.505
	st.dev.	5.88	5.66	5.810	5.562
	min.	23	23	23	23
	max.	55	55	55	55
Femaleclient femaleloanofficer	*obs.*	603,951	64,404	23,856	40,548
	mean	0.287	0.257	0.276	0.245
	st.dev.	0.452	0.437	0.447	0.430
	min.	0	0	0	0
	max.	1	1	1	1

Femaleclient maleloanofficer	*obs.*	603,951	64,404	23,856	40,548
	mean	0.297	0.298	0.276	0.307
	st.dev.	0.457	0.457	0.447	0.461
	min.	0	0	0	0
	max.	1	1	1	1
Maleclient femaleloanofficer	*obs.*	603,951	64,404	23,856	40,548
	mean	0.197	0.194	0.206	0.187
	st.dev.	0.398	0.395	0.405	0.390
	min.	0	0	0	0
	max.	1	1	1	1
Maleclient maleloanofficer	*obs.*	603,951	64,404	23,856	40,548
	mean	0.219	0.251	0.234	0.261
	st.dev.	0.413	0.434	0.423	0.439
	min.	0	0	0	0
	max.	1	1	1	1

Table A3: T-tests between clients with default and without defaults, and between clients with default of less than 30 days and of more than 30 days

	Mean No Default	Mean Default	t-stat	Mean Less than 30 days	Mean More than 30 days	t-stat
Client age	41.964	38.988	-71.188***	41.312	40.779	6.172***
Single client	0.494	0.610	64.014***	0.571	0.625	-14.739***
Client no education	0.023	0.019	-7.879***	0.020	0.018	2.079**
Client secondary education	0.392	0.323	-38.977***	0.347	0.314	9.515***
Client high education	0.585	0.658	40.976***	0.632	0.668	-9.976***
Loan cycle	3.312	2.344	-98.214***	2.579	2.253	21.822***
Approved amount	2681.247	2100.108	-66.052***	2372.411	1994.272	28.249***
Loan officer secondary education	0.198	0.247	29.093***	0.231	0.256	-7.038***
Loan officer college education	0.056	0.061	4.944***	0.238	0.239	-0.255
Loan officer university education	0.746	0.693	-29.299***	0.709	0.684	6.706***
Loan officer age	34.362	34.486	5.117***	34.453	34.505	-1.123
Femaleclient femaleloanofficer	0.287	0.257	-16.264***	0.274	0.160	38.297***
Femaleclient maleloanofficer	0.297	0.298	0.517	0.280	0.200	25.325***
Maleclient femaleloanofficer	0.197	0.194	-1.827*	0.204	0.122	30.839***
Maleclient maleloanofficer	0.219	0.251	18.831***	0.232	0.171	20.513***

Alternative estimation methods

First, since our dependent variable can be considered as a count variable with over-dispersed count data, we run a negative binomial regression, an extension of a Poisson regression (Cameron & Trivedi, 2013; Hilbe, 2011). Next, because the majority of clients do not exhibit any default throughout the sample period, we also run a Tobit model which takes into account the 'bunching at zero' of the continuous outcome variable. Additionally, for further analysis, we took a binary variable for the dependent variable taking the value of 1 when the client is defaulting, and 0 otherwise and ran a Probit model.

Finally, there is a risk of auto-correlation in the sense that the number of days in default keeps adding up per quarter for a given defaulting client, making our dependent variable a 'running' variable throughout the sample period. To tackle potential endogeneity coming from autocorrelation, we also estimate a Cox Hazard Model. This model, also sometimes referred to as a 'survival analysis' estimates the influence of our covariates on the 'hazard to default' which is defined as the likelihood of default conditional on clean repayment performance until the first observed defaulting quarter (Agarwal et al., 2018).

Specifically, in Table A4, we present 2 models for each estimation, that is, one without interactions (Model 5 in baseline results) and another with all interactions (Model 6 in baseline results). Thus, we present a Negative Binomial estimation (columns 1 and 2), Probit estimation (columns 3 and 4), Tobit estimation (columns 5 and 6), and Cox Hazard estimation (columns 7 and 8).

Table A4: Effect of gender combination of the pairs on days of default – Negative Binomial, Probit, Tobit and Cox Hazard

VARIABLES	(1) Negative Binomial default_days	(2) Negative Binomial default_days	(3) Probit Failure	(4) Probit Failure	(5) Tobit default_days	(6) Tobit default_days	(7) Cox Hazard Failure	(8) Cox Hazard Failure
Female client	-0.143***		-0.155***		-4.447***		0.840***	
	(0.011)		(0.109)		(0.685)		(0.007)	
Female loanofficer	-0.170***		-0.215***		-4.784***		0.863***	
	(0.011)		(0.015)		(0.231)		(0.007)	
Femaleclient femaleloanofficer		-0.314***		-0.369***		-9.151***		0.725***
		(0.015)		(0.019)		(0.722)		(0.009)
Maleclient femaleloanofficer		-0.173***		-0.145***		-3.790***		0.838***
		(0.015)		(0.016)		(0.350)		(0.010)
Femaleclient maleloanofficer		-0.146***		-0.206***		-3.639***		0.821***
		(0.014)		(0.018)		(0.718)		(0.009)
Client age	-0.002***	-0.002***	-0.0002	-0.0002	1.789***	1.789***	0.990***	0.990***
	(0.000)	(0.000)	(0.001)	(0.001)	(0.031)	(0.031)	(0.000)	(0.0000)
Single client	0.285***	0.285***	0.519***	0.519***	11.70***	11.69***	1.204***	1.204***
	(0.011)	(0.011)	(0.015)	(0.015)	(0.682)	(0.682)	(0.010)	(0.010)
Client no education	-0.233***	-0.233***	-0.224***	-0.224***	-19.70***	-19.69***	0.674***	0.673***
	(0.038)	(0.038)	(0.051)	(0.051)	(2.269)	(2.269)	(0.019)	(0.019)
Client primary education	-0.159***	-0.159***	-0.269***	-0.269***	-12.09***	-12.09***	0.745***	0.745***
	(0.011)	(0.011)	(0.016)	(0.016)	(0.706)	(0.706)	(0.006)	(0.006)
Loan cycle	-0.026***	-0.026***	0.075***	0.074***	0.546***	0.544***	0.931***	0.941***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.079)	(0.079)	(0.002)	(0.003)
Log approved amount	-0.222***	-0.222***	-0.010	-0.010	-3.711***	-3.713***	0.428***	0.428***
	(0.008)	(0.008)	(0.009)	(0.009)	(0.204)	(0.204)	(0.003)	(0.003)
Loanofficer secondary education	0.085***	0.085***	-0.004	-0.004	5.994***	5.998***	1.385***	1.385***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.264)	(0.264)	(0.014)	(0.014)
Loanofficer college education	0.0850***	0.0850***	0.032	0.032	0.240	0.237	1.506***	1.507***
	(0.022)	(0.022)	(0.021)	(0.021)	(0.382)	(0.382)	(0.028)	(0.028)
Loan officer age	0.026***	0.026***	0.030***	0.030***	0.701***	0.702***	0.981***	0.981***
	(0.001)	(0.001)	(0.001)	(0.0001)	(0.019)	(0.019)	(0.001)	(0.001)
Constant	-1.819***	-1.818***	-3.341***	-3.347***	-45.55***	-46.03***		
	(0.070)	(0.070)	(0.088)	(0.0879)	(2.282)	(2.285)		
Observations	668,355	668,355	668,355	668,355	668,355	668,355	676,056	676,056
Prob>Chi2	0.000	0.000	0.000	0.000	0.000	0.000		
Log likelihood	-589237.11	-589237.08	-163666.92	-163666.55	-3588594.6	-3588587.5	-779725.95	-777584
Branch controls	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, failure is a dummy variable of value 1 when default days are greater than zero and value of 0 when the client is not in default, models 5 and 6 depict hazard ratios where the event is a client's failure to repay a loan on time.

The results from Table A4 confirm that female clients exhibit lower default days or are less likely to be in failure than male clients when holding constant the loan officer's gender. Female loan officers also exhibit lower default days or are less likely to have clients in failure than male loan officers when holding constant the client's gender.

Based on the results from the Negative Binomial model and the Tobit estimation, although the differences of coefficients among pairs may for some appear quite small, our results further confirm that the best performing pairs are, in order of ranking, female client-female loan officer, male client-female loan officer, female client-male loan officer, and male client-male loan officer. The Probit estimations show that female client-female loan officer, male client-female loan officer and female client-male loan officer pairs are all less likely to be 'in failure' than male client-male loan officer pairs. Finally, the Cox Hazard regressions show that there is smaller 'hazard-to-default' for female client – female loan officer, male client – female loan officer and female client – male loan officer pairs compared to the reference category (male client – male loan officer pairs).
Similar to our baseline results, we also present other potential models (1 to 4) estimated using these alternative estimation methods in Table A5, Table A6 and Table A7 and Table A8

Table A5: Negative Binomial

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Default_days	Default_days	Default_days	Default_days	Default_days	Default_days
Female client	-0.147***	-0.146***			-0.143***	
	(0.011)	(0.014)			(0.011)	
Female loan officer			-0.173***	-0.173***	-0.170***	
			(0.011)	(0.015)	(0.011)	
Femaleclient femaleloanofficer		-0.168***		-0.141***		-0.314***
		(0.014)		(0.015)		(0.015)
Maleclient femaleloanofficer		-0.173***				-0.173***

		(0.015)				(0.015)
Femaleclient maleloanofficer				-0.146***		-0.146***
				(0.014)		(0.014)
Client age	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Single client	0.285***	0.285***	0.259***	0.285***	0.285***	0.285***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Client no education	-0.231***	-0.233***	-0.224***	-0.233***	-0.233***	-0.233***
	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)
Client primary education	-0.154***	-0.159***	-0.157***	-0.159***	-0.159***	-0.159***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Loan cycle	-0.026***	-0.026***	-0.030***	-0.026***	-0.026***	-0.026***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Log approved amount	-0.221***	-0.222***	-0.212***	-0.222***	-0.222***	-0.222***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Loan officer secondary education	0.095***	0.085***	0.087***	0.085***	0.085***	0.085***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Loan officer college education	0.161***	0.0850***	0.0828***	0.0850***	0.0850***	0.0850***
	(0.021)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)
Loan officer age	0.026***	0.026***	0.026***	0.026***	0.026***	0.026***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Constant	-1.913***	-1.818***	-1.955***	-1.818***	-1.819***	-1.818***
	(0.070)	(0.070)	(0.069)	(0.070)	(0.070)	(0.070)
Observations	668,355	668,355	668,355	668,355	668,355	668,355
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000
Log pseudolikelihood	-589368.2	-589237.08	-589327.48	-589237.08	-589237.11	-589237.08
Branch Controls	YES	YES	YES	YES	YES	YES

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table A6: Probit Estimation

VARIABLES	(1) Failure	(2) Failure	(3) Failure	(4) Failure	(5) Failure	(6) Failure
Female client	-0.217***	-0.206***			-0.155***	
	(0.0152)	(0.0180)			(0.109)	
Female loanofficer			-0.157***	-0.145***	-0.215***	
			(0.0109)	(0.016)	(0.015)	
Femaleclient femaleloanofficer		-0.163***		-0.223***		-0.369***
		(0.0141)		(0.019)		(0.019)
Maleclient femaleloanofficer		-0.145***				-0.145***
		(0.0161)				(0.016)
Femaleclient maleloanofficer				-0.206***		-0.206***
				(0.018)		(0.018)
Client age	-0.0001	-0.0002	-0.0001	-0.0002	-0.0002	-0.0002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Single client	0.520***	0.519***	0.480***	0.519***	0.519***	0.519***
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Client no education	-0.223***	-0.224***	-0.220***	-0.224***	-0.224***	-0.224***
	(0.051)	(0.051)	(0.051)	(0.051)	(0.051)	(0.051)
Client primary education	-0.265***	-0.269***	-0.268***	-0.269***	-0.269***	-0.269***
	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)
Loan cycle	0.074***	0.075***	0.071***	0.075***	0.075***	0.074***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Log approved amount	-0.009	-0.001	0.003	-0.010	-0.010	-0.010
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Loan officer secondary education	0.004	-0.004	-0.003	-0.004	-0.004	-0.004
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Loan officer college education	0.087***	0.032	0.031	0.032	0.032	0.032
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
Loan officer age	0.030***	0.030***	0.030***	0.030***	0.030 ***	0.030***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.0001)
Constant	-3.432***	-3.347***	-3.540***	-3.347***	-3.341***	-3.341***
	(0.088)	(0.088)	(0.087)	(0.088)	(0.088)	(0.088)
Observations	668,355	668,355	668,355	668,355	668,355	668,355
Log likelihood	-163765.64	-163666.55	-163758.86	-163666.55	-163666.92	-163666.55
Branch Controls	YES	YES	YES	YES	YES	YES

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1, failure is a dummy variable of value 1 when default days are greater than 0, and value of 0 when the client is not in default

Table A7: Tobit Estimation

VARIABLES	(1) Default_days	(2) Default_days	(3) Default_days	(4) Default_days	(5) Default_days	(6) Default_days
Female client	-4.540***	-3.639***			-4.447***	
	(0.686)	(0.718)			(0.685)	
Female loanofficer			-4.793***	-3.789***	-4.7824***	
			(0.231)	(0.350)	(0.231)	
Femaleclient femaleloanofficer		-5.512***		-5.361***		-9.151***
		(0.300)		(0.7126		(0.722)
Maleclient femaleloanofficer		-3.790***				-3.790***
		(0.350)				(0.350)
Femaleclient maleloanofficer				-3.639***		-3.640***
				(0.78)		(0.718)
Client age	1.796***	1.789***	1.792***	1.789***	1.789***	1.790***
	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
Single client	11.710***	11.695***	10.839***	11.694***	11.698***	11.695***
	(0.707)	(0.682)	(0.669)	(0.682)	(0.682)	(0.682)
Client no education	-19.675***	-19.687***	-19.670***	-19.687***	-19.699***	-19.687***
	(2.273)	(2.269)	(2.270)	(2.269)	(2.269)	(2.269)
Client_primary education	-11.987***	-12.088***	-12.067***	-12.088***	-12.078***	-12.088***
	(0.707)	(0.706)	(0.706)	(0.706)	(0.706)	(0.706)
Loan cycle	0.545***	0.544***	0.511**	0.544***	0.546***	0.544***
	(0.079)	(0.079)	(0.079)	(0.079)	(0.079)	(0.079)
Log approved amount	-3.682***	-3.713***	-3.625***	-3.713***	-3.711***	-3.713***
	(0.205)	(0.204)	(0.204)	(0.204)	(0.204)	(0.204)
Loan officer secondary education	6.387***	5.998***	6.000***	5.998***	5.994***	5.998***
	(0.264)	(0.264)	(0.264)	(0.264)	(0.264)	(0.264)
Loan officer college education	1.605***	0.237	0.234	0.237	0.240	0.237
	(0.376)	(0.382)	(0.382)	(0.382)	(0.382)	(0.382)
Loan officer age	0.690***	0.702***	0.702***	0.702***	0.701***	0.702***
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Constant	-47.938***	-46.027***	-48.389***	-46.028***	-45.55***	-46.027***
	(2.281)	(2.285)	(2.241)	(2.285)	(2.281)	(2.285)
Observations	668,355	668,355	668,355	668,355	668,355	668,355
Log likelihood	-3768687.4	-3588587.5	-3768687.4	-3588587.5	-3588594.6	-3588587.5
Branch Controls	YES	YES	YES	YES	YES	YES

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table A8: Cox Hazard Model

VARIABLES	(1) Hazard	(2) Hazard	(3) Hazard	(4) Hazard	(5) Hazard	(6) Hazard
Female client	0.839***	0.821***			0.840***	
	(0.007)	(0.009)			(0.007)	
Female loan officer			0.862***	0.838***	0.863***	
			(0.007)	(0.010)	(0.007)	
Femaleclient femaleloanofficer		0.884***		0.865***		0.725***
		(0.010)		(0.010)		(0.009)
Maleclient femaleloanofficer		0.838***				0.838***
		(0.010)				(0.010)
Femaleclient maleloanofficer				0.821***		0.821***
				(0.009)		(0.009)
Client age	0.990***	0.990***	0.991***	0.990***	0.990***	0.990***
	(0.000)	(0.0000)	(0.000)	(0.000)	(0.000)	(0.0000)
Single client	1.204***	1.204***	1.168***	1.385***	1.204***	1.204***
	(0.01)	(0.010)	(0.010)	(0.014)	(0.010)	(0.010)
Client no education	0.674***	0.673***	0.678***	0673***	0.674***	0.673***
	(0.019)	(0.019)	(0.020)	(0.020)	(0.019)	(0.019)
Client primary education	0.747***	0.745***	0.747***	0.745***	0.745***	0.745***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Loan cycle	0.930***	0.931***	0.931***	0.931***	0.931***	0.941***
	(0.002)	(0.02)	(0.002)	(0.002)	(0.002)	(0.003)
Log approved amount	0.428***	0.428***	0.428***	0.428***	0.428***	0.428***
	(0.029)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Loan officer secondary education	1.377***	1.385***	1.385***	1.385	1.385***	1.385***
	(0.014)	(0.0137)	(0.014)	(0.014)	(0.014)	(0.014)
Loan officer college education	1.586***	1.507***	1.504***	1.507	1.506***	1.507***
	(0.029)	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)
Loan officer age	0.982***	0.981***	0.981***	0.981***	0.981***	0.981***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Observations	676,056	676,056	676,056	676,056	676,056	676,056
Loglikelihood	-777733.68	-777584	-777589.4	-777584	-779725.95	-777584
Branch Controls	YES	YES	YES	YES	YES	YES

Standard errors in parentheses,*** p<0.01, ** p<0.05, * p<0.1, Hazard represents the hazard ratios obtained from cox hazard models where the event is a client's failure to repay a loan on time.

Chapter 3: Employee tenure and Staff performance: The case of a social enterprise*

Abstract

The literature on social enterprises has largely examined tradeoffs at the organizational level. In this paper, we look at tradeoffs at the employee level. By analyzing the case of an Ecuadorian microfinance institution, we show that tenure of social enterprise employees affects individual social and financial performances differently: the relationship between tenure and social performance is a positive one, whereas that between tenure and financial performance is an inverted U-shaped one. Furthermore, our results suggest that social enterprise employees with the longest tenure are the least inclined to experience tradeoff tensions.

Keywords: employee tenure, social enterprises, tradeoffs, social performance, financial performance

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1. Introduction

Social enterprises have gained popularity since their appearance in the 1980s and 1990s and are now considered an alternative to charity organizations and government intervention in social, economic, and environmental issues (Saebi, Foss, & Linder, 2019; Yunus, 2017). They are hybrid organizations because they pursue a social mission in an entrepreneurial manner (Battilana & Dorado, 2010; Battilana & Lee, 2014; Santos, 2012) and endorse a dual (financial and social) logic (Battilana & Dorado, 2010; Pache & Santos, 2013; Wry & York, 2017). To ensure their sustainability, they must find the right balance between social and financial objectives. Successful social enterprises cannot succeed in only one dimension; to attain a larger long-term outreach, they must be financially sustainable. Nevertheless, financial performance must remain a means to achieve their social mission and not become an end in itself.

Balancing both financial and social performance may not be easy to achieve (Civera, Cortese, Mosca, & Murdock, 2020) and unfortunately, nowadays, there are many examples of social enterprises that face tradeoff tensions between both types of performance and opt to favor their financial mission over their social one as they mature, a trend known as "mission drift" (Tykkyläinen & Ritala, 2021). Since social enterprises are "labor-intensive rather than capital-intensive organizations" (Nakagawa & Laratta, 2013: 2; Anheier, 2005), they must rely on their employees to reach such a balance. Therefore, the employees of social enterprises are expected to be the guardians of the hybridity of the organization they work for.

However, employees of social enterprises also face internal tensions. They may encounter difficulties in identifying with both prongs of the organizational mission (Battilana & Dorado, 2010) and, just like the organization they work for, they may face tradeoff tensions in reaching those objectives (Doherty, Haugh, & Lyon, 2014; Nason, Bacq, & Gras, 2018). These tradeoff tensions are called "performing tensions" (Civera et al., 2020; Smith, Gonin, & Besharov, 2013). Furthermore, as mentioned by Zychlinski, Lev, and Kagan (2020), social enterprise employees must fulfill their primary obligation to increase clients' well-being while being constrained by their secondary obligation to achieve financial self-sufficiency. Beisland, D'Espallier, and Mersland (2019) observed mission drift at the employee

level. In what they term “personal mission drift,” the authors find that employees’ prosocial motivation decreases as the length of their employment at the organization increases.

This study aims to deepen understanding of the tradeoff tensions faced by social enterprises by examining them at the employee level. It considers the effect of employee tenure on both social and financial performance and a combined measure of both performance types.

To examine the relationship between employee tenure and both social and financial performance measured at the individual level, we use a sample of 1,757 employee–quarter observations taken from 196 loan officers at a specialized, socially-oriented microfinance bank in Ecuador. Our results from multilevel random-effects models suggest a positive linear relationship between tenure and social performance, and an inverted U-shaped relationship between tenure and financial performance, with financial performance increasing at first and decreasing thereafter.

Finally, considering that tradeoff tensions are expected to disappear when employees achieve the right balance between social and financial performance, we attempt to determine how tenure affects the achievement of individual hybrid performance. We determine that a loan officer achieves hybrid performance when he receives a good-to-excellent score on one type of performance and a satisfactory score on the other. Our results suggest a nonlinear relationship, where the likelihood of achieving hybrid performance initially increases with tenure and then becomes steady, showing that employees with the longest tenure are the most able to achieve hybrid performance and the least affected by tradeoff tensions.

This study contributes to the existing literature on social enterprises. First, it is among the first quantitative studies on employee behavior in such organizations. In microfinance literature, attention is commonly focused on donors as crucial stakeholders rather than on employees. This study follows the literature that suggests that employees can affect the achievement of social enterprises’ performance objectives (Beisland et al., 2019). Building on Battilana and Dorado (2010) and Battilana and Lee (2014), we show that human capital is an influential component of “hybrid organizing,” that is, managing “the activities, structures,

processes, and meanings by which organizations make sense of and combine multiple organizational forms" (Battilana & Lee, 2014: 397). Additionally, we show that employee tenure should not be neglected when examining hybrid organizing; tenure influences the type of performance favored by employees and also the type of institutional logic adopted by the organization.

Second, while mission drift and tradeoffs in social enterprises are mostly examined at the firm level (e.g., Reichert, 2018), we consider them at the employee level. Our findings highlight the importance of examining tradeoffs in social enterprises at the micro level.

Third, we contribute to the literature on tradeoffs in social enterprises by spotlighting the "performing tensions" that are experienced by social enterprise employees, and by showing that employee tenure plays a role in the emergence of such tensions. This is in line with Nason et al. (2018) and Saebi et al. (2019), who highlight that the hybrid nature of a social enterprise creates ambiguity and uncertainty among various stakeholders, including employees.

Fourth, this study builds on preliminary empirical evidence that the tradeoff tensions experienced by social workers vary according to their tenure. Although Zychlinski et al. (2020) show that tenure is related to tradeoff tensions for social workers in the governmental and for-profit sectors but not for employees of social enterprises, we acknowledge that further research is needed to confirm their study. Here, we show that the likelihood of experiencing tradeoff tensions is lower for long-tenured employees in social enterprises.

2. Literature review

2.1 Organizational behavior in social enterprises

Social enterprises are mission-oriented organizations, which, according to Besley and Ghatak (2005), are better able than corporate organizations to attract prosocially motivated agents; that is employees who "may care directly about the social payoff" (Besley & Ghatak, 2017: 28). However, due to the dual (financial and social) logic endorsed by these organizations, there is evidence that employees

do not necessarily identify with both logics (Battilana & Dorado, 2010; Besharov, 2014). Moreover, employees see that this dual logic is integrated into their daily work and are thus likely to experience tradeoff tensions (Saebi et al., 2019). Additionally, the dual logic and identities of these organizations can lead to interpersonal conflicts (Besharov, 2014; Glynn, 2000; Zilber, 2002). These elements indicate the various challenges faced by social enterprise employees. If not well managed, they may compromise the hybridity of these organizations (Beisland et al., 2019). The success of social enterprises largely depends on their ability to attract, select, and retain the employees who are the most motivated and able to find the right balance between social and financial performance (Moses & Sharma, 2020).

In this study, we focus on one type of social enterprise: microfinance institutions (MFIs). MFIs offer financial services to low-income families or microenterprises that are excluded from the traditional banking system. Like other social enterprises, MFIs pursue a double bottom line mission of reaching out to and positively impacting the well-being of as many clients as possible while ensuring their own financial sustainability.

Loan officers can be considered the guardians of the organization's hybridity since they affect both financial and social performance (Agier, 2012). As reported by Dixon, Ritchie, and Siwale (2007), loan officers have a direct impact on outreach and client empowerment. Since loan procedures in microfinance are largely decentralized (Labie, Méon, Mersland, & Szafarz, 2015), loan officers exercise a considerable degree of discretion and cannot be easily monitored. Their jobs are often viewed as particularly demanding for several reasons. First, they are confronted with harsh conditions (Siwale, 2016) because they may work in unsecured and remote areas. Second, like employees in other types of social enterprises, they are more likely to experience tradeoff tensions (Siwale, 2016). They are expected to act as personal advisors and debt collectors (Siwale & Ritchie, 2012), and these tasks are often in conflict. Recovering debt often puts loan officers in an uncomfortable position (Kar, 2013), particularly if they are personally affected by the borrowers' well-being. In some cases, they must adopt a stricter attitude to ensure loan repayment. They are also highly pressured to reach loan portfolio growth targets, causing them to "sometimes [experience] trouble fulfilling their community role" (Morvant-Roux, Guérin, Roesch, & Moisseron,

2014: 309), and inducing them to grant as many loans as possible. Moreover, granting too many loans risks pushing some clients into over-indebtedness (Rahman, 1999; Schicks, 2010). This clearly shows that microfinance loan officers may face numerous tensions in the accomplishment of both financial and social targets.

Since this study aims to analyze the effect of microfinance loan officers' tenure on possible tradeoffs between their individual financial and social performance, the next section will be dedicated to a review of the literature on the relationship between job tenure and performance.

2.2 Employee tenure and performance relationship

2.2.1 Employee tenure and social performance

The attraction–selection–attrition (ASA) model (Schneider, 1987; Schneider, Goldstein, & Smith, 1995) is particularly suited to understanding the relationship between tenure and social performance in value-driven organizations such as MFIs and other social enterprises that need employees who identify with the organizational double bottom line. This model argues that "newcomers are attracted to [and prefer to stay in] organizations that match their properties and requirements" (Solinger, Van Olffen, Roe, & Hofmans, 2013: 1644) and that organizations select people who best correspond to their characteristics and requirements (Bretz, Ash, & Dreher, 1989; Solinger et al., 2013: 1644). People who do not have a good person–organization fit are screened out by attraction and selection processes (Kristof-Brown, Zimmerman, & Johnson, 2005). Moreover, person–organization and person–job fits tend to increase with the length of employment in the organization (Schneider et al., 1995) or in the job. For social enterprises, we refer to personal–organizational value fit (De Clercq, Fontaine, & Anseel, 2008) because of the social orientation of such organizations. According to Cable and Judge (1996), employees internalize organizational values over time, and the alignment between employees' and organizational values favors organizational commitment.

The literature on social enterprises and other mission-oriented organizations shows that such organizations can attract and recruit employees with personal values that fit with those of the organization (Besley & Ghatak, 2005; Ohana & Meyer, 2010).

Brolis and Angel (2015) further explain that this implies social enterprises' ability to attract prosocially motivated employees, that is, employees who are willing to undertake efforts to benefit others (Batson, 1987). The good personal–organizational value fit (De Clercq et al., 2008) that results from the hiring process in social enterprises may be explained in two ways: first, social enterprise applicants place a high premium on altruistic and social values; second, the "limited profit distribution" constraint of social enterprises indicates that working for such organizations contributes to the general interest (Ohana & Meyer, 2010; Brolis & Angel, 2015).

Furthermore, retention may also play a role in the job tenure–social performance relationship since, as suggested by Hsieh, Weng, and Lin (2018), social enterprise employees who do not identify with the organizational values tend to voluntarily resign. According to Cornelius, Todres, Janjuha-Jivraj, Woods, and Wallace (2008: 362), social enterprises "may […] lack appropriate emphasis upon good ethical HR practices." Indeed, they explain that "the strength of the community social mission […] may be so embedded in the corporate ethos that less attention may be paid to internal matters" (Cornelius et al., 2008: 356). Additionally, some individuals, particularly in countries where many MFIs operate, may claim to be motivated by the social mission of social enterprises in their desperate search for a job (Siwale, 2006; Siwale, 2016), and thus be quick to leave when opportunities in the for-profit sector arise. Indeed, social enterprises are reported to offer fewer motivational incentives than for-profit firms because of their limited resources (Brolis, 2018). Therefore, we can assume that employees who stay in social enterprises demonstrate high organizational commitment, which may be reflected in an increase in job performance (Jaramillo, Mulki, & Marshall, 2005) and, in this case, social performance.

The above arguments lead us to propose the following hypothesis:

Hypothesis 1: The relationship between the tenure of social enterprise employees and their social performance is positive.

2.2.2 Employee tenure and financial performance

The relationship between employee tenure and social performance in social enterprises is based on a match between employees' inherent values and those of their organization. In contrast, the relationship between employee tenure and financial performance in social enterprises may be more dependent on employees' skills and knowledge and is thus more closely related to the employee tenure–financial performance relationship that has been highlighted in the for-profit sector. Therefore, we argue that referencing literature on the for-profit sector is relevant.

Scholars have long argued that the amount of time an employee spends in a particular job (job tenure) or organization (organizational tenure) is positively linked to job performance (McEnrue, 1988; Ng & Feldman, 2010a, 2010b; Shirom & Mazeh, 1988). Murphy (1989) further suggests that tenure will first increase and then decrease job performance. He developed a two-stage model of performance that is particularly appropriate for examining the relationship between employee tenure and individual financial performance. This model suggests that the factors that induce performance vary with employee tenure and distinguishes between two stages of tenure: a transition stage and a maintenance stage.

In the transition stage, employees gain abilities, skills, and tacit and explicit knowledge (Myers, Griffith, Daugherty, & Lusch, 2004), which is closely related to human capital theory (Becker, 1964). Employees thus become more familiar with the tasks they have to perform (Schmidt, Hunter, & Outerbridge, 1986; Wagner, Ferris, Fandt, & Wayne, 1987), their role in the organization (Steffens, Shemla, Wegge, & Diestel, 2014), and organizational procedures, norms, and culture (Chatman, 1991; Steffens et al., 2014; Tesluk & Jacobs, 1998). Based on human capital theory, tenure can therefore be viewed as the primary source of human capital (Becker, 1975; Mincer, 1974). Since a higher level of human capital is known to increase individual performance (Ng & Feldman, 2010a, 2013; Sturman, 2003), the relationship between tenure and individual financial performance is expected to be positive in the transition phase.

Later in their tenure, employees enter the maintenance stage. According to motivation and job design theories (Hackman & Oldham, 1976), longer-tenured employees have lower job performance. They engage in fewer non-task related

activities (Organ, 1988) and demonstrate less organizational commitment (Stout, Slocum, & Cron, 1988). Consequently, employees in the maintenance stage are more likely to make mistakes (Ng & Feldman, 2013) and possibly engage in counterproductive work behaviors (Bennett & Robinson, 2000).

Reminiscent of Murphy's (1989) two-stage model of performance, Helmreich, Sawin, and Carsrud (1986) use the analogy of a honeymoon effect to characterize the effect of tenure on motivation. During the first few months, employees experience excitement, which is an important aspect of intrinsic motivation. However, as time passes, they perceive the job as involving lower task variety and being less stimulating, leading to a decrease in motivation (Gardell, 1971; Hackman & Oldham, 1976, 1980).

In the empirical literature, some studies have shown a significant positive relationship between employee tenure (defined in terms of job tenure, organizational tenure, or experience) and individual financial performance (Ali & Davies, 2003; Gordon & Fitzgibbons, 1982; Hunter & Hunter, 1984; Quinones, Ford, & Teachout, 1995), while other studies find no significant relationship (Gordon & Johnson, 1982; Ng & Feldman, 2013). The nonlinear effect of tenure on individual financial performance is also frequently highlighted. For example, some studies show that the relationship between employees' organizational tenure and their financial performance is positive, but the strength of this positive relationship decreases over time (Jacobs, Hofmann, & Kriska, 1990; Ng & Feldman, 2010a; Steffens et al., 2014), while other studies indicate that this relationship is an inverted U-shape that first increases and then decreases (Blakemore & Hoffman, 1989; Sturman, 2003). Additionally, the level of human capital accumulation tends to be lower for employees with longer tenure than for new employees (Ng & Feldman, 2010a; Sturman, 2003). This finding can be explained by Murphy's model: during the transition stage, new employees have to learn new skills and tasks, whereas during the maintenance stage employees are already familiar with their tasks (Murphy, 1989). Due to the reduced accumulation of human capital relative to an employee's tenure, the positive effect of such accumulation on their financial performance decreases over time (Ng & Feldman, 2010a; Steffens et al., 2014).

The above arguments lead us to propose the following hypothesis:

Hypothesis 2: The relationship between the tenure of social enterprise employees and their financial performance is an inverted U-shaped one in which individual financial performance first increases and then decreases.

3. Methodology

3.1 Data

3.1.1 Context

To conduct this study, we use a unique dataset from Banco D-MIRO, an Ecuadorian MFI. Ecuador, a Latin American country of 16.62 million inhabitants (2017 census), is an upper-middle-income country with a per capita GNI of US$ 5,920 and a human development index of 0.6 (The World Bank, 2018). In terms of poverty, the percentage of the population living on less than $1.90 per day was 3.2% in 2017 and 28.2% in 2000 (The World Bank, 2018). In 2017, 51.24% of the population (over 15 years old) had a bank account[1] against 37% in 2011. Regarding the microfinance sector, in 2016, Ecuador appeared in the top 10 countries based on the number of borrowers and gross loan portfolios and ranked 19th of 55 countries in terms of the enabling environment for financial inclusion (Economist Intelligence Unit, 2018). The "Red Financiera Rural" national network,[2] which comprises 50 microfinance players and represents the main part of Ecuador's microfinance industry (Beisland et al., 2019), reports a total loan portfolio of $3,984,782,704 and a total of 1,180,424 clients.

Banco D-MIRO transformed from a small credit project established in 1997 to an independent NGO called Fundación D-MIRO in 2006 and thereafter to a fully regulated bank supervised by the Banking Superintendency in 2011.[3] Its 13 branches are located in 5 provinces and 8 cities throughout the coastal region of Ecuador. The religious background of the Banco D-MIRO is not unique. Historically, faith-based organizations have been driving financial inclusion for centuries, and today around one-fifth of all MFIs have a Christian origin

[1] The World Bank (2017), https://globalfindex.worldbank.org/

[2] http://www.rfd.org.ec/informe-anual

[3] https://www.d-miro.com/nosotros/nuestra-historia/

(Mersland, D'Espallier, & Supphellen, 2013). Banco D-MIRO pursues a strong social mission, as attested by the four stars attributed to it by MicroRate,[4] a leading microfinance rating agency. In 2016, based on a report from MicroRate (2016), the percentages of the population served by Banco D-MIRO with an income below the poverty line and with an income below the extreme poverty line were 29.8% and 10.3%, respectively. The percentage of female borrowers at Banco D-MIRO reached 56.2% in 2016 (MicroRate, 2016). However, this MFI operates with non-trivial but not very high profit margins (ROE around 5%–10% annually).[5] As explained by Beisland et al. (2019), because of its social orientation and financial sustainability, Banco D-MIRO can be considered a typical MFI. At the end of 2016, its loan portfolio was $92,973,263, representing 37,995 active borrowers (MixMarket).

3.1.2 Sample

We use two unique datasets from Banco D-MIRO's core banking systems: one containing information on the personal characteristics of 256 loan officers and the other comprising quarterly information on all credits disbursed between the second quarter of 2012 and the third quarter of 2016. Since staff turnover is relatively high, with few loan officers staying in the MFI for more than a few years, this period appears sufficiently large to explore the effect of employee tenure on individual performance. The information was anonymized in compliance with the General Data Protection Regulation (EU) 2016/679 (GDPR). Based on the code attributed to each loan officer, we merge the two databases and restructure the information by loan officers and by quarter. New loan officers who had been employed by the organization for less than two quarters are excluded from the sample observations on loan officers who were in the organization for less than 2 quarters in order to avoid including the high increase in their portfolio at risk of more than 30 days (PaR30) which is inevitable for loan officers who have just entered the organization. Our final panel dataset consists of 1,757 loan officer–quarter observations, including 196 loan officers who worked for Banco D-MIRO for the period 2012Q2–2016Q3 (18 quarters).

[4] Five is the maximum number of stars that can be attributed.

[5] Source: Banco D-MIRO, Memoria Institutional 2017.

3.2 Variables

3.2.1 Dependent variables

To measure employees' social performance, we use two indicators linked to clients' business growth, development, and success: the mean change in clients' business total assets and the mean change in clients' business operating income between two quarters. We deem these to be suitable measures since microfinance aims to provide financial services to microentrepreneurs who are excluded from the traditional banking system (Hudon & Sandberg, 2013) and thus aims to finance income-generating activities. In addition, most credits offered by MFIs (including Banco D-MIRO) are dedicated to clients' businesses (Fafchamps, McKenzie, Quinn & Woodruff, 2014; Karlan & Zinman, 2012). Changes in clients' business operating incomes and their total business assets are evaluated at the client level; this is particularly interesting as loan officers' social performance is better reflected when viewed at the client level. These measures are then aggregated for each loan officer in each quarter by taking the mean of the changes in these indicators for all clients of a specific loan officer.

We measure employees' individual financial performance by the PaR30. To build such a measure, we divide the loan officers' PaR30 by their gross loan portfolio (MicroRate, 2014). It is calculated at the employee level and therefore differs from one loan officer to another and evolves along quarters. The PaR30 is inversely related to financial performance; that is, a low PaR30 signifies low credit risk and, hence, higher financial performance. To facilitate the understanding of our results, we consider the additive inverse of PaR30 by dividing it by -1. Thus, high PaR30 values correspond to high financial performance. A measure of financial risk linked to loan default that can be used as a proxy for loan officers' financial performance is highly relevant in the microfinance industry. Indeed, one of the main factors that contribute to the success of modern microfinance is the importance that the MFI attaches to repayment; by contrast, the earliest microcredit projects were less concerned about defaults, thereby endangering their survival (Cull, Demirgüç-Kunt, & Morduch, 2009). Modern microfinance institutions have used several innovative techniques to ensure repayments, such as group lending and joint liability (Hermes & Lensink, 2007; Postelnicu, Hermes, & Szafarz, 2014), progressive lending (Egli, 2004; Morduch, 1999), and highly developed

monitoring and enforcement mechanisms, including the possibility of loan officers visiting clients at home to collect repayment (Dixon et al., 2007).

To avoid complete reliance on a risk-related measure to gauge the financial performance of loan officers,[6] we also conduct our analysis with the loan officers' portfolio size (logged) as an alternative dependent variable.[7] The value of the outstanding portfolio and the portfolio at risk are the main criteria used by MFIs to offer monetary rewards to loan officers (Beisland et al., 2019; De Pril & Godfroid, 2020).

3.2.2 Independent variable

The main independent variable is the loan officer's tenure, indicating how long they had worked in that position at the MFI. It is a continuous variable expressed in terms of the number of quarters. For instance, a loan officer who has worked for eight quarters is considered to have more tenure than one who has worked for three quarters.

3.2.3 Control variables

We control for sociodemographic factors of loan officers because their substantial differences that exist among them might affect performance (Otiti, Andersson, & Mersland, 2021; Agier, 2012). Following Beisland et al.'s (2019) study on loan officers' experiences, we control for age and gender. Age is a continuous variable included on the assumption that older microfinance loan officers perform differently than younger ones, and gender is a dummy variable included on the assumption that male loan officers perform differently than female officers. Regarding gender, Beck, Behr, and Guettler (2013) find that female loan officers have portfolios with lower default rates than their male counterparts, but van den Berg, Lensink, and Servin (2015) find that the opposite is true. We also consider that the loan officer's education affects both social and financial performance

[6] Some might argue that low PaR30 does not necessarily mean high financial performance but rather suggests loan officers' risk aversion leading them to focus only on reliable clients. Nevertheless, controlling repayment is considered the main challenge to assure an MFI's long-term survival (Zamore, Beisland, & Mersland, 2021).

[7] We are aware that this performance measure may be highly correlated with our two social measure variables: change in clients' business operating income and change in clients' total assets. Nevertheless, initial checks did not reveal any problem of multicollinearity between the value of the loan officers' outstanding portfolio and our social dependent variables.

(Siwale, 2016). It is represented as a continuous variable with three levels: secondary (junior high school), post-secondary (senior high school), and university education. On the one hand, less educated loan officers are reported to relate better to the poorest clients (Siwale, 2016). On the other hand, more educated loan officers are found to be better at managing their portfolios and keeping default rates low (Bruns, Holland, Shepherd, & Wiklund, 2008).

Furthermore, we control for loan officers' turnover. Turnover is represented by two separate dummy variables: voluntary turnover, which refers to loan officers who resigned, and involuntary turnover, which refers to loan officers who were dismissed. Each of these variables takes a value of 1 for the last quarter in which the loan officer worked, and 0 otherwise. This enables us to control for the possibility that loan officers who are about to leave may be tempted to reduce their performance. We also control for the rate at which loan officers have clients transferred to them. This enables us to control for the fact that loan officers are required to take over the portfolios of colleagues who are leaving or being promoted. Furthermore, loan officers are sometimes asked by the MFI to rotate their clients with other loan officers. We denote this by "rotates in" and "rotates out," respectively. To illustrate, *rotates in* refers to the rate at which a loan officer obtains new clients from another loan officer in the MFI, and *rotates out* refers to the rate at which a loan officer transfers his clients to another loan officer in the MFI.

Additionally, we control for some client characteristics in the regression. Specifically, the proportion of female clients and the clients' average age in a loan officer's portfolio; loan repayment rates are higher for female than for male clients (D'Espallier, Guérin, & Mersland, 2011; Staveren, 2001) and higher for older than for younger clients (Godfroid, 2019). Both variables are expected to influence the growth and success of MFIs. For example, since females are recognized as using their loans more efficiently than males (Pitt & Khandker, 1998), the enterprises owned by female borrowers are expected to perform better (Thapa, 2015). Moreover, Eijdenberg and Borner (2017) find that entrepreneurs' age is positively linked to the performance of their microenterprises. We also include a control variable for the client's current loan cycle, which indicates the number of loans that a particular client has received since their entry into the MFI.

Finally, we control for the number of loan officers in a branch and quarters.

3.3 Supplementary data

We complemented the quantitative data with qualitative insights from discussions with different staff members regarding our findings during a seven-day visit to Banco D-MIRO in September 2019. This qualitative investigation should be considered a complementary means to further comprehend the rationale behind the quantitative results rather than as a qualitative study. Four group discussions are conducted with 5 to 11 loan officers per group. Group discussions began with a presentation of our quantitative findings. Loan officers were then encouraged to give their opinions on the topic and to try to explain the econometric results in light of their own experiences. To better comprehend the functioning of the institution, some discussions were conducted individually with the CEO, with two branch managers, with the heads of the credit, IT, risk, business, HR, compliance, innovation, and recovery departments, and finally with two individual loan officers. All participants gave their consent to take part in this research and were informed that their anonymity would be guaranteed. As recording was not possible, we took notes during all the individual and group discussions. Some Spanish sentences quoted directly from participants were transcribed and later translated into English (in Ecuador, Spanish is the national language and is spoken by two of the authors of this study).

3.4 Descriptive statistics

Table 1 presents the number of observations, means, and standard deviations of the variables used in this study. The total approved loan amount is expressed in US dollars and job tenure in quarters. Based on this table, the average PaR30 and portfolio size are 9.4% and USD 909,207, respectively. The mean change in the clients' business operating income between the two quarters in loan officers' portfolios is 1.05%, whereas the mean change in the clients' business total assets is 98%. The average tenure is approximately 10 quarters. It should be noted that in this case, age is not highly correlated with tenure since tenure among individuals varies from 3 to 21 quarters, while age varies from 23 to 55 years.

Table 1: Descriptive Statistics

Variables	Description	Observations	Mean	Std. Dev.	Min	Max
Dependent Variables						
PaR30 (additive inverse)	Portfolio at risk (30 days) *(-1)	1,757	0.0940	0.1854	0	1
change_operatingincome	Change in clients' operating income between two quarters in a loan officer's portfolio	1,631	0.0105	0.0187	-0.1424	0.5092
change_totalassets	Change in clients' total assets between two quarters in a loan officer's portfolio	1,657	0.9829	2.1736	-0.6296	42.4354
lo_portfoliosize	Loan officer's portfolio size (in $)	1,757	909,207.9	329,416.3	637.33	2,317,381
Independent Variable						
tenure	Tenure (quarters)	1,757	9.9795	5.1242	3	21
Control Variables						
loanofficer_age	Loan officer's age	1,648	34.3489	5.8404	23	55
male_loanofficer	Loan officer's gender (1 if male, 0 otherwise)	1,757	0.5253	0.4995	0	1
loanofficer_education	Loan officer's education (1 secondary, 2 post-secondary, 3 university)	1,757	2.5054	0.8271	1	3
voluntary_turnover	Voluntary turnover (1 if the loan officer has voluntarily left during the last quarter, 0 otherwise)	1,757	0.0586	0.2350	0	1
involuntary_turnover	Involuntary turnover (1 if the loan officer has involuntarily left the MFI during the last quarter, 0 otherwise)	1,757	0.0322	0.1312	0	1
rotates_in	Rotates in	1,757	0.0323	0.1507	0	0.9770
rotates_out	Rotates out	2,246	0.0383	0.1436	0	1
cycle	Average clients' loan cycle in a loan officer's portfolio	1,757	3.16499	1.14387	1	7.096899
client_age	Average age of clients in a loan officer's portfolio	1,757	43.704	2.4970	31	50.784
femaleclient_percentage	Percentage of female clients in a loan officer's portfolio	1.757	0.5744	0.0075	0	1
loan officers/branch	Number of loan officers per branch	1,757	7.638589	2.262085	2	13

3.5. Econometric approach

Since our data exhibits a nested structure in which loan officers are nested within bank branches, we conduct a multilevel random-effects analysis, using loan officers as the first level and branches as the second level. We choose the multilevel random-effects analysis to include time-invariant variables, namely, some loan officers' sociodemographic characteristics. Random-effects models

assume that there is no correlation between the unobserved error term and each independent variable (Green, 2008).

To express our hypotheses regarding the effect of employees' tenure on their individual social and financial performance, we formulate the following equations:

$$social\ performance_{ijt} = \alpha_0 + \beta_1 tenure_{ijt} + loanofficer\ control\ variables_{ijt} + branch\ control\ variable_{jt} + \mu_{0jt} + \varepsilon_{ijt} \quad (1)$$

$$financial\ performance_{ijt} = \alpha_0 + \beta_1 tenure_{ijt} + \beta_2\ tenure_{ijt}^2 + loanofficer\ control\ variables_{ijt} + branch\ control\ variable_{jt} + \mu_{0jt} + \varepsilon_{ijt}, \quad (2)$$

where $socialperformance_{ijt}$ and $financialperformance_{ijt}$ are the dependent variables for loan officer i at branch j in quarter t, β_1 and β_2 are the coefficients of the main independent variable (tenure), $loanofficercontrolvariables_{ijt}$ is a vector of loan officer level control variables, $branchcontrolvariables_{jt}$ is a vector of branch level control variables, u_{0j} is the error term at the branch level, and e_{ijt} is the error term at the loan officer level.

4. Results

4.1 Effect of tenure on social performance

The results of the analysis of the relationship between tenure and social performance are presented in Table 2.

Table 2 shows a positive linear relationship between tenure and change in clients' business operating income per loan officer in Model 1 and a positive linear relationship between tenure and change in clients' business total assets per loan officer in Model 2, lending support to Hypothesis 1. This suggests that the remaining employees, that is, those with longer tenure, are better able to improve the clients' well-being. Moreover, since personal–organizational value fit tends to increase over time, social enterprise employees with longer tenure better internalize organizational values and are therefore better able to contribute to clients' well-being. It should be noted that microfinance loan officers may perform

multiple roles, including acting as the client's financial advisor (Siwale & Ritchie, 2012). Taken together, the findings suggest that as time progresses, loan officers develop a closer relationship with clients, accumulate soft information about them and their businesses, and become more competent advisors. It is, therefore, plausible to assume that these factors are reflected in the growth of their clients' microenterprises.

Table 2: Results for the Tenure–Social Performance Relationship

Variables	(1) change_totalassets	(2) change_operatingincome
tenure	0.0533724***	0.0002384*
	(0.0160583)	(0.0001434)
loanofficer_age	-0.0148222	-0.0003081***
	(0.0098894)	(0.0000891)
loanofficer_education	0.1188466*	-0.0007674
	(0.0691122)	(0 .0006231)
male_loanofficer	-0.0422462	-0.0001859
	0.1145864	(0.0010275)
involuntary turnover	-0.2060353	-0.0062081
	0.5183222	(0.0063076)
voluntary_turnover	-0.3808243	-0.0035999
	(0.2823949)	(0.0027584)
rotates_in	-0.0252709	0.0013567
	(0.3949733)	(0.0035444)
rotates_out	0.3254257	0.0001141
	(0.3451089)	(0.0031634)
cycle	0.2104251***	0.0012998**
	(0.0732327)	(0.0006459)
client_age	0.0157223	-0.0003691
	0.0380562	(0.0003328)
femaleclient_percentage	1.090531	0.0256048***
	0.9144106	(0.0082467)
loanofficers/branch	-0.1078865***	-0.0012277***
	0.0388604	(0.000329)
constant	-18.66373***	0.084294**
	4.541777	(0.0408818)
number of observations	1,548	1,522
loglikelihood	-3340.6843	3891.6969
quarter controls	YES	YES

Standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

4.2 Effect of tenure on financial performance

Table 3 highlights the results on the effect of tenure on financial performance.

Models 1 and 2 show that financial performance as measured by the additive inverse of PaR30 and by loan officer's portfolio size first increases with tenure and then decreases. Therefore, the relationship between tenure and financial performance is an inverted U-shaped one, as suggested in Hypothesis 2.

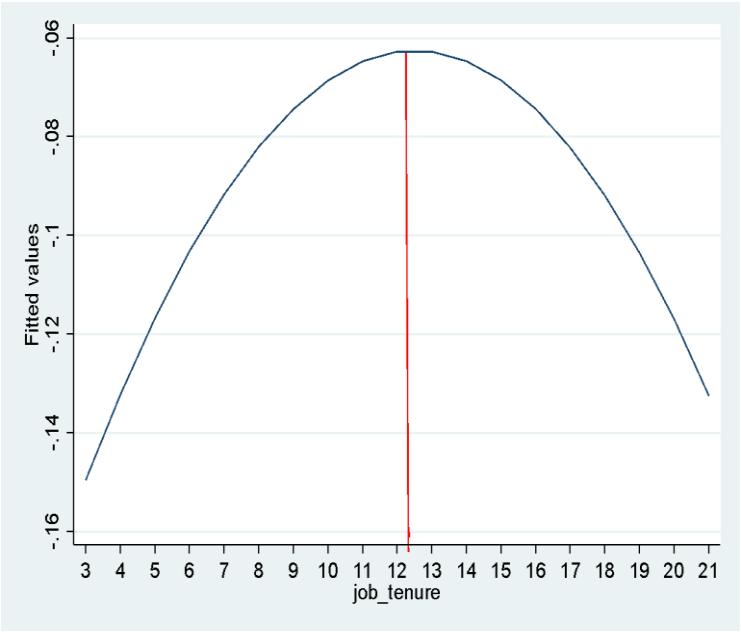
Table 3: Results for the Tenure–Financial Performance Relationship

Variables	(1) PaR30 (additive inverse)	(2) Portfoliosize (log)
tenure	0.0128345***	0.0487148***
	(0.0042091)	(0.0183665)
$tenure^2$	-0.0007454***	-0.0026555***
	(0.000191)	(0.000839)
loanofficer_age	-0.0015184**	-0.0006022
	(0.0007465)	(0.0025031)
loanofficer_education	0.0077575	-0.0093167
	(0.0052093)	(0.0174788)
male_loanofficer	-0.0139327	0.0090158
	(0.0086492)	(0.028972)
involuntary_turnover	-0.4152172***	-1.155394***
	(0.0400243)	(0.1371688)
voluntary_turnover	-0.2693938***	-0.8806495***
	(0.0215597)	(0.0730564)
rotates_in	0.0314712	-0.1240397
	(0.0305504)	(0.1032612)
rotates_out	0.0132725	0.0812688
	(0.0260892)	(0.0879505)
cycle	0.0240243***	0.1823025***
	(0.0056231)	(0.0193397)
client_age	0.0128928***	0.0820416***
	(0.0028778)	(0.0100696)
femaleclient_percentage	0.1763492***	0.2557706***
	(0.0684634)	(0.2337043)
loanofficers/branch	-0.0066632**	-0.0301916***
	(0.0029997)	(0.0112679)
constant	-2.301373***	8.874047***
	(0.3326307)	(8.874047)
number of observations	1,648	1648
loglikelihood	653.58696	-1337.481
quarter controls	YES	YES

Standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

In Figure 1, it can be seen that the curve between tenure and financial performance, as measured by the additive inverse of PaR30, reaches its maximum between 12 and 13 quarters.

Figure 1: Relationship between Tenure and PaR30 (additive inverse)



Simple slope tests[8] clearly show a curvilinear relationship between tenure and financial performance and that the minimum of the curve is obtained for a job tenure level of 12.44 quarters, a relatively intermediate tenure compared to the maximum of 21 quarters in our sample.

Table 4: Simple Slope Tests for Tenure and PaR30 (additive inverse)

Simple slope of C-PaR30 (additive inverse) on C_tenure at C_tenure +/- 15sd				
C_tenure	Coeff	Std. Err.	T	P>|t|
High	-0.1293429	0.0263524	-4.91	0.000
Mean	0.0266033	0.0046439	5.7	0.000
Low	0.1825495	0.0354406	5.15	0.000

The initial increase in financial performance is the result of a learning effect and the accumulation of human capital (Becker, 1964; Mincer, 1974). Loan officers' tenure seems to be particularly important when lending to small and medium-sized enterprises and other more informationally opaque borrowers. This is because loan

[8] A standard deviation of 15 was considered for simple slope tests in order to have a real difference between low and high values.

officers with longer tenure develop long-term relationships with clients, which enables them to acquire soft information on these borrowers (Fiordelisi, Monferrà, & Sampagnaro, 2014; Uchida, Udell, & Yamori, 2012). This acquisition and production of information can help loan officers to both ensure repayment and offer new credit to existing clients (Scott, 2006). In a study on the role of loan officers in the performance of microloans distributed by an MFI in Brazil, Agier (2012) finds that loan officers' tenure positively affects their ability to distinguish between good and bad clients and that the enhancement of their screening ability over time can be explained in terms of relationship lending and learning-by-doing.

In the second stage, financial performance decreases with tenure, signaling demotivation and job boredom (Medoff & Abraham, 1980; Ng & Feldman, 2013) as well as complacency. The loss of motivation also reflects the effect of harsh conditions in the field that loan officers or social enterprises employees generally encounter in their roles. Indeed, in microfinance, loan officers face difficult conditions such as physical insecurity, robbery, poor transportation infrastructure, harsh weather conditions, and clients with little or no education, as highlighted by Siwale (2016) and van den Berg et al. (2015). Informal discussions with loan officers provide additional insights into the reasons behind this performance decline. Specifically, numerous loan officers declared that, with time, they became overconfident in their ability, reached their "comfort zone," and developed strong emotional bonds with clients, all of which leads to less strict credit analysis and therefore lower loan portfolio quality. Moreover, some loan officers cited a lack of career advancement as a source of demotivation.

Our results also show that loan officers with a higher percentage of senior and female clients exhibit higher financial performance.

4.3 Additional analysis: Effect of tenure on hybrid performance

Examining the impact of employee tenure on social performance (Table 2) and financial performance (Table 3) yields interesting findings. Given the hybrid nature of social enterprises, social performance and financial performance form a continuum where the extremes are high social performance and high financial performance. As Muñoz and Kimmitt (2019) explain, this perspective is adopted

by most studies on social enterprises. Thus, our study examines the effect of tenure on the tradeoff between social and financial performance.

Since there is a tradeoff between social and financial performance, this study assumed that a loan officer achieves hybrid performance when they receive a good-to-excellent score on one type of performance and a satisfactory score on the other. Specifically, for our hybrid performance variable, we attribute a value of 1 when a loan officer has a social performance (financial performance) that is greater than or equal to the 50th percentile and a financial performance (social performance) that is within the 40th–49th percentile range.[9] Otherwise, a value of 0 is attributed. Social performance is measured as the mean change in the client's total business assets and financial performance as the loan officer's loan portfolio size.[10]

To the best of our knowledge, no such combined measure has been used in social enterprise literature; thus, our examination is merely an exploration of how hybrid performance may be impacted.

Table 5 shows a multilevel logit regression for binary outcomes to determine the effect of tenure on the likelihood of achieving hybrid performance.

The results in Table 5 highlight a nonlinear relationship between tenure and the likelihood of achieving hybrid performance, where the coefficient of *tenure* is positive and significant, and the coefficient of *tenure*^{2} is negative and significant.

[9] For the purposes of this study we adopt the view that both high social and financial performance cannot be reached concurrently. In other words, as social performance improves, financial performance is neglected, and vice versa. The right balance falls somewhere between the two extremes; hence the "tradeoff." Nevertheless, we also recognized, even if it is not the view adopted in this study, that both high social and financial performance can, in some instances, be reached concurrently.

[10] Our number of observations for financial performance is 1,011 for the 40th–49th percentile range and 878 for the 50th–100th percentile range. Our number of observations for social performance is 149 for the 40th–49th percentile range and 828 for the 50th–100th percentile range.

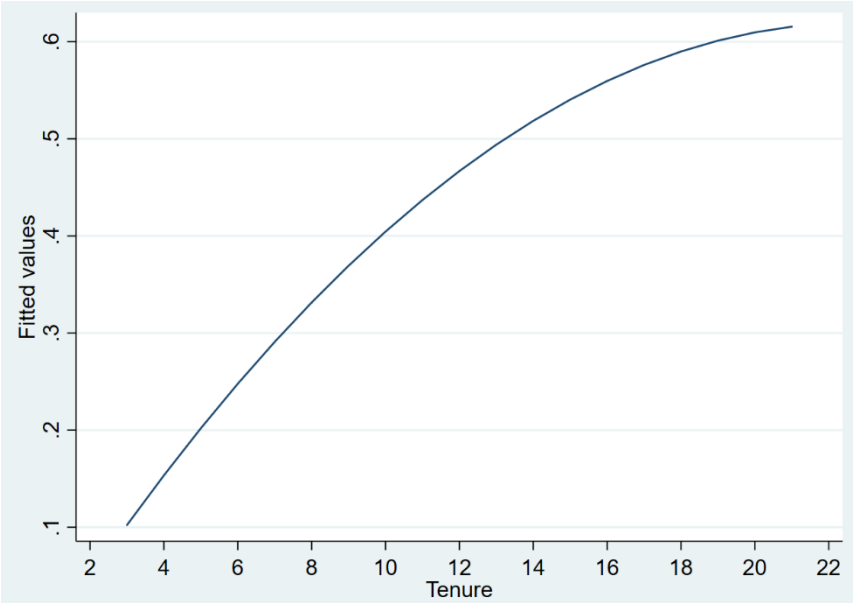
Table 5: Results for the Effect of Tenure on the Combined Social and Financial Performance Measure

Variables	Hybrid performance
tenure	0.4185858***
	(0.0950855)
$tenure^2$	-0.0150241***
	(0.0042625)
loanofficer_age	0.0085207
	(0.0127446)
loanofficer_education	0.0043176
	(0.0921953)
male_loanofficer	0.1599423
	(0.152164)
involuntary_turnover	-1.534572*
	0.8800669
voluntary_turnover	-0.5484285
	(0.3978311)
rotates_in	-0.4179143
	(0.5047464)
rotates_out	0.5258071
	(0.4679375)
cycle	0.5411094***
	(0.0993593)
client_age	0.142875***
	(0.0554378)
femaleclient_percentage	-3.662212***
	(1.1791)
loanofficers/branch	-0.0906154
	0.0604867
constant	-8.703831***
	2.533335
observations	1,548
loglikelihood	-686.69008
quarter controls	YES

Standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

Figure 2 shows that the achievement of hybrid performance reaches its peak at 21 quarters of tenure. Thereafter, it remains steady. Since 21 quarters is the maximum tenure in our sample, we can conclude that employees with the longest tenure are the most likely to achieve hybrid performance and thus are the least likely to experience tradeoff tensions.

Figure 2: Relationship between Tenure and Hybrid Performance



5. Discussion and Conclusion

This study aims to better understand how tenure influences social enterprise employees' ability to achieve a balance between social and financial performance. Due to the dual logic endorsed by social enterprises, employees may, in their daily work, face tradeoff tensions between social and financial performance, making the achievement of a balance between both particularly difficult. Indeed, as Siwale and Ritchie (2012) argue, in microfinance, loan officers may face the dilemma of having to fulfill the conflicting roles of financial advisor and debt collector. It is recognized in the literature that tradeoff tensions between both types of performance may endanger the sustainability of social enterprises (Saebi et al., 2019). Since Nakagawa and Laratta (2013) acknowledge that social enterprises, in particular MFIs, are often labor-intensive organizations, we consider tradeoffs at the employee level to be particularly relevant to the discussion on the sustainability of hybrid organizations.

By conducting a quantitative analysis based on a sample of 1,757 employee–quarter observations from an Ecuadorian MFI and using insights from group and individual discussions in the field, we examine the effect of tenure on employees' social and financial performance.

First, we demonstrate that employees' social performance tends to increase with tenure and that the relationship between employees' tenure and financial performance is an inverted U-shape. Thus, employees' financial performance undergoes a two-stage development. In the first stage, financial performance increases with tenure because of the learning effect and the accumulation of human capital (Becker, 1964; Mincer, 1974). However, in the second stage, financial performance tends to decrease because of job boredom.

While most studies examine the effect of tenure on either social or financial performance, we ran a multilevel logit regression model for binary outcomes to simultaneously consider both types of performance. Our results show that the relationship between tenure and hybrid performance is nonlinear, where the likelihood of achieving hybrid performance initially increases (until 21 quarters of tenure) and subsequently plateaus. This shows a lower likelihood of long-tenured social enterprise employees experiencing tradeoff tensions. Indeed, over time, employees internalize both the social and financial institutional logics of the organizational mission, helping them to identify with it and experience fewer tradeoff tensions. Furthermore, in line with the attraction–selection–attrition and personal–organizational value fit models, it could be argued that employees who do not adhere to organizational values, both social and commercial, would probably have left the organization earlier.

In summary, these findings offer two key contributions to the literature. First, we provide a deeper understanding of hybrid organizing by identifying the factors that may influence tradeoff tensions between social and financial performance at the employee level. In contrast to other studies conducted for example by Battilana and Dorado (2010), Battilana and Lee (2014), and Besharov (2014), our study shows that such tensions are related not only to the composition of the workforce in terms of employee values or background but also to their tenure in the social enterprise. Second, our study shows that the tradeoff tensions experienced by social enterprise employees may evolve without any intervention and may simply be a result of the length of time spent in the organization. Our findings show that the likelihood of finding a balance between social and financial performance is indeed higher for long-tenured employees.

Our study makes two main empirical contributions. First, while tradeoffs in social enterprises are mostly examined at the firm level (e.g., Reichert, 2018), we argue that such tradeoffs should also be examined at the micro level by showing that the dichotomy between the social and financial missions, or between the developmental and commercial institutional logics, is reflected in the loan officers' ability or willingness to find the right balance between social and financial performance. Second, from a methodological perspective, this study, to the best of our knowledge, is one of the first to examine through quantitative analysis the tradeoffs experienced by social enterprise employees.

This study offers some recommendations to managers of social enterprises, especially MFIs. It emphasizes the importance of exposing employees to organizational values from the outset. It also suggests the need for the development of human resource practices that facilitate the selection and training of employees so that they can confront and resolve any tradeoff tensions. Therefore, this study suggests the need for employee reward systems that are linked to the achievement of both social and financial objectives to reduce the tradeoff tensions experienced by employees in achieving the required targets.

Based on this study, we can conclude that in organizations where employees are expected to achieve both social and financial objectives, short-tenured employees will be the least able to manage tradeoff tensions.

This study has some limitations. First, the data do not offer the opportunity to measure employees' prosocial motivation, a variable that may influence social performance. Prosocial motivation is a latent variable that cannot be observed directly, and our data consisted only of observed variables. Thus, we cannot determine whether the increase in social performance with tenure is related to an increased desire to help others or is linked to the loan officers' abilities to improve social performance over time. In the microfinance literature, Beisland et al. (2019) show that newly recruited loan officers are often motivated by a desire "to do good," but that loan officers' enthusiasm to serve the poor tends to peak early in their careers and decrease afterwards. While we could not observe a decline in social performance with tenure, we cannot affirm that loan officers' prosocial motivation is not negatively affected by time. Second, our results on the combined performance measure are merely a first step toward establishing how tenure may

influence the tradeoff between social and financial performance at the individual level. However, to the best of our knowledge, existing literature contains no recognized measure that combines both types of performance. Interestingly, while in this study we considered that social and financial performance in social enterprises forms a continuum and that tradeoff tensions disappear only when both performances reach a balanced level, Muñoz and Kimmitt (2019) argue that there is not necessarily a tradeoff between them and that both high social and financial performance can exist in tandem. Finally, since we consider only one MFI in one context, our results might not be generalizable to other settings. However, we argue that the studied MFI is representative of organizations operating in the microfinance sector for five main reasons. First, like most MFIs, it aims to achieve a double bottom line. Second, it exhibits the typical business model of MFIs in terms of geographical coverage within a country through its numerous branches, and in terms of the latitude, it offers to loan officers. Third, due to the recent trend of commercialization in the MFI industry, it has evolved from an NGO to a bank as several other MFIs are doing (D'Espallier, Goedecke, Hudon, & Mersland, 2017). Moreover, it has international influence from various stakeholders, as is typical in the microfinance industry (Mersland, Randøy, & Strøm, 2011). Fourth, the studied MFI operates in a typical microfinance context since Latin America is one of the largest MFI markets. Finally, we believe that our findings may be of inspiration to social enterprises since MFIs are recognized in the literature as a common type of social enterprise (Battilana & Dorado, 2010). Therefore, although this study is not generalizable, we can argue that our case study is a typical one that offers the opportunity to develop theoretical contributions (Yin, 2012).

This study provides opportunities for future research. Since not all employees of social enterprises are prosocially motivated and, even among the prosocially motivated ones, some are animated by "pure altruism" and others by "impure altruism" (Andreoni, 1989), as shown by Godfroid (2017), future research could consider the different types of employee motivation when examining the effect of tenure on individual performance. In addition, future studies could further examine the tenure–performance relationship in other types of social enterprises beyond MFIs, as well as consider different contexts of operation for comparative purposes. Future research could also examine the potential moderating effect of social enterprise employees' gender and educational background on the relationship between tenure and performance. For example, in terms of gender, Beck et al.

(2013) suggest that female loan officers have portfolios with lower default rates compared to their male counterparts, while van den Berg et al. (2015) suggest the opposite. In terms of education, the type of educational background and the level of education should both be considered, as argued by Battilana and Dorado (2010) and Siwale (2016).

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Chapter 4: Staff turnover and Credit risk in Microfinance: The moderating role of female leadership*

Abstract

The purpose of this paper is to determine the influence of staff turnover on credit risk of microfinance institutions and whether female leadership moderates this relationship. Using a global dataset of microfinance institutions (MFIs), random effects analyses are performed. The results show that high staff turnover leads to higher credit risk in MFIs, but that female leadership mitigates this relationship. These results are robust to alternative estimations using system GMM regressions. Accordingly, this study highlights the critical role played by employees through the detrimental effect of high staff turnover on MFIs' performance. It also highlights the advantages of female leadership for MFIs' performance in high staff turnover situations, primarily through influencing organizational culture and maintaining employee motivation.

Key words:

Staff turnover; female leadership; female leadership advantage; microfinance; credit risk.

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1. Introduction

Microfinance institutions, like other social enterprises, often struggle with high staff turnover (Caringal-Go & Hechanova, 2018; Microfinance Insights, 2008). This can be explained by the challenges faced by microfinance employees, such as exposure to harsh working conditions in the field (Siwale, 2016; van den Berg, Lensink, & Servin, 2015), high workload due to understaffing, and workplace tensions due to conflicting social and financial objectives (Saebi, Foss, & Linder, 2019; Battilana & Dorado, 2010). Moreover, microfinance employees play a critical role as they act as mediators between a microfinance institution and its clients (Siwale & Ritchie, 2012). In fact, more than half of microfinance employees are in direct contact with clients (Labie, Méon, Mersland, & Szafarz, 2015) and are sometimes referred to as foot soldiers of the firm (Siwale & Ritchie, 2012). Therefore, high staff turnover may be harmful not only to the microfinance institution, but also to the clients who stand to lose the potential benefit from accessing the services provided by it.

To ensure the sustainability of microfinance institutions (MFIs), the efficient management of credit risk is important. Credit risk is a key performance measure as repayment of loans is the single most important variable for measuring MFIs' success (Armendariz & Mordurch, 2010; Cull, Demirgüç-Kunt, & Morduch, 2009). Vital to ensuring repayment of loans is the staff who directly oversee the "mobilizing, screening and monitoring" of clients (Labie, Méon, Mersland, & Szafarz, 2015, p. 46). Additionally, female leaders are important for microfinance performance. They are described as being able to understand the clients' needs (Strøm, D'Espallier &, Mersland, 2014) and having the ability to motivate the employees (Perilleux & Szafarz, 2021). Accordingly, the purpose of this study is to determine the impact of staff turnover on credit risk in microfinance institutions and whether female leadership moderates this relationship.

High staff turnover causes disruptions in the operations of firms. First, high staff turnover implies that firms incur high costs as they have to continually recruit new employees to replace the departing ones, leading to the diversion of often scarce resources that could have been used for other activities (Caringal-Go & Hechanova, 2018). Second, high staff turnover may lead to increased workloads for the remaining employees, especially when there are delays in the hiring of

replacements (Call et al., 2015). Third, high staff turnover requires the breaking of ties between clients and departing employees, who may take with them important, not easily attainable information about the clients (Caringal-Go & Hechanova, 2018; Drexler & Schoar, 2014). Lastly, high staff turnover may also lead to the loss of experiential knowledge such as client interaction skills and interpersonal relational techniques (Yang, 2007). For all these reasons, high staff turnover in MFIs may ultimately lead to the loss of important human and social capital.

To the best of my knowledge, Drexler & Schoar (2014) and Canales & Greenberg (2016) are among the few studies to undertake an explicit empirical investigation of the relationship between staff turnover and performance outcomes in microfinance. However, these studies are only case studies that focus on a single microfinance firm in the Latin American countries of Chile and Mexico, respectively. They find that staff turnover leads to higher default rates (Drexler & Schoar, 2014; Canales & Greenberg, 2016) and lower credit access for clients (Drexler & Schoar, 2014). These outcomes are more likely when departing employees are demotivated to share information with replacement employees (Drexler & Schoar, 2014). In this paper, richer microfinance data from a global dataset of 70 countries is considered in order to determine the generalizability of those results.

The human resource literature highlights the need to go beyond studying the impact of staff turnover on performance and to study rather the importance of potential moderators in the relationship (e.g., Ton & Huckman, 2008). In the microfinance literature, empirical investigations have highlighted the turnover type, that is, whether voluntary or involuntary (Drexler & Schoar, 2014), and the consistency in interpersonal relational styles among employees, that is, "reoccurring patterns of interaction by actors within and across exchange relationships" (Canales & Greenberg, 2016, p. 1), as potential moderator variables of staff turnover effects. However, there is still a dearth of knowledge on the role of female leadership as a potential moderator in this relationship. I seek to fill this gap by investigating female leadership from a theoretical perspective and determining whether it moderates the relationship between staff turnover and credit risk in microfinance institutions.

In this study, upper echelons theory forms the basis for studying the moderating effect of female leadership. It states that the characteristics of leaders, such as gender, tend to influence performance outcomes (Hambrick & Mason, 1984). Inherent in this discussion is the leadership style associated with each gender, and the relative advantages of female leadership over male leadership (Eagly, Johannesen-Schmidt, & Van Engen, 2003; Eagly & Carli, 2003). In microfinance, this female leadership advantage is evidenced by the fact that female leaders are generally described as being more socially oriented than men (Périlleux& Szafarz, 2015). Besides, this female leadership advantage not only benefits the clients, but also the employees who tend to be motivated by the social mission (Besley & Ghatak, 2005).

To perform the analysis, unbalanced panel data on 294 microfinance institutions from 70 countries for the period 1998–2018 is used. The data is taken from two prominent sources of information on microfinance institutions, namely, microfinance rating agencies and the Microfinance Information Exchange (MIX). To the best of my knowledge, this study is the first to combine these two datasets. Random effects analyses and system generalized method of moments (GMM) analyses are performed in a bid to address potential endogeneity issues.

The random effects and system GMM analyses highlight the crucial role of microfinance employees by showing that high staff turnover in microfinance institutions has a detrimental effect on credit risk, as predicted. The results also highlight the crucial role of female leadership by showing that high staff turnover leads to less detrimental performance outcomes in female-led microfinance institutions than in male-led ones. These findings imply a potential female leadership advantage in microfinance institutions with regard to human resources. They also suggest that female leaders have the ability to succeed despite potentially harmful situations in the firm, and that their success may be attributed to their leadership style, social mission orientation, and ability to influence organizational culture.

The study has theoretical and practical implications for personnel management, leadership, and performance in microfinance. It highlights the prevalence of high staff turnover in microfinance institutions and its detrimental impact on credit risk. Accordingly, it emphasizes the need to establish internal strategies and practices

and understand firm characteristics that can help mitigate staff turnover effects. Additionally, the study highlights the important role of female leadership in mitigating staff turnover effects in microfinance. Accordingly, it calls for a closer examination of the traits of female leaders that facilitate personnel management in these firms. Overall, the study contributes to the literature on female leadership and human resources in mission-oriented businesses.

The paper proceeds as follows. Section 2 reviews the literature and develops the hypotheses. Section 3 presents the data and variables, Section 4 the methodology, and Section 5 the results. Section 6 discusses the results and concludes.

2. Literature Review

2.1 Staff turnover and credit risk in microfinance

In microfinance, employees perform various activities such as screening clients, enforcing loan repayment contracts (van den Berg et al., 2015; Beck et al., 2013; Agier, 2012), encouraging clients' participation in microfinance, and providing microfinance services and products (Siwale & Ritchie, 2012). Most importantly, microfinance employees are required to establish relationships with clients so as to obtain soft information about them that is important when issuing a loan (Siwale & Richie, 2012; Shahriar & Garg, 2017). To the extent that microfinance employees perform these activities, they facilitate loan repayment (Dixon, Ritchie & Siwale, 2007), which is considered important for the continued survival of microfinance institutions (Armendariz & Mordurch, 2010; Cull et al., 2009). At the same time, microfinance employees are often exposed to harsh conditions as they perform their activities, such as traveling long distances to remote areas with poor transportation infrastructure, bad weather, and even insecurity (van den Berg et al., 2015; Siwale, 2016). Additionally, microfinance employees tend to come from different backgrounds and experience identity problems as well as role conflicts (Battilana & Dorado, 2010). Overall, these myriad demands tend to result in high staff turnover in microfinance institutions.

High staff turnover may lead to a number of problems. First, it results in broken ties between the departing employees and their clients (Canales & Greenberg, 2016; Drexler & Schoar, 2014). As a result, the departing employees may take

with them important, not easily attainable information about the clients (Caringal-Go & Hechanova, 2018; Drexler & Schoar, 2014). Second, high staff turnover tasks the firm with the responsibility of replacing departing loan officers (Call et al., 2015), either with employees of the MFI or with new hires. Moreover, the replacement employees (whether old or new) may lack the necessary client information, which may affect their ability to efficiently screen the clients. This information asymmetry may be further exacerbated when the departing employees are not motivated to transfer important soft information to the replacement employees as is often the case when staff turnover is involuntary (Drexler & Schoar, 2014). Though not directly related to staff turnover, the banking literature on personnel changes associated with a firm rotation policy suggests that communication by soon-to-be rotated employees with their replacements about their clients' repayment behavior presents eventual benefits in terms of credit risk management (Hertzberg, Liberti, & Paravisini, 2010). For example, when the departing loan officer reports information to the bank concerning potentially risky clients, it may lead to stricter monitoring of such clients by the replacement loan officer (Hertzberg et al., 2010). Third, high staff turnover in MFIs entails a loss not only of soft client information, but also of the skills developed by the departing employees in dealing with their clients. In microfinance, employees are in direct contact with clients for a prolonged period of time, during which they develop intangible skills involving client interaction and interpersonal relationship techniques that may be important when dealing with certain clients. As a countermeasure, Canales & Greenberg (2016) suggest the adoption of organizational practices that promote consistent interpersonal relational styles between departing and replacement loan officers. According to them, consistent interpersonal relational styles between employees ensure that expectations in the employee–client relationship are clearly understood, which in turn facilitates repayment of loans on time. Therefore, the ability of loan officers to transfer such skills to other employees becomes important and may require an organizational environment that encourages the sharing of information among employees (Yang, 2007). Fourth, high staff turnover may increase the workload of the remaining employees (Call et al., 2015). For example, delays in obtaining new hires requires the remaining employees to take on the clients of the departing employees in addition to their own clients, and the resulting increase in their workload may demotivate them. Moreover, even when new employees are hired, the remaining employees may be tasked with the responsibility of socializing them, which further

increases their workload. High workload may in turn reduce the employees' efficiency in managing their portfolio (Sarker, 2013), ultimately leading to higher credit risk.

Prominent empirical studies on the relationship between staff turnover and credit risk in microfinance include Canales & Greenberg (2016) and Drexler & Schoar (2014). These studies are performed using data on a single firm in Mexico and Chile, respectively. The authors find that staff turnover leads to higher default rates and hence higher credit risk. Relatedly, Drexler & Schoar (2014) find that clients are less likely to receive a new loan because they lack an incentive to request a new one, or because their loan application is rejected by their newly assigned loan officer.

Ultimately, as shown in conventional human resource studies, staff turnover is likely to lead to loss of human capital, that is, the skills and knowledge that are obtained through training or experience in a particular job (Mohr et al., 2011; Shaw, 2011). Staff turnover can also lead to loss of social capital resulting from the broken ties in the relationship between the clients and the employees, which are important for performance (Shaw, Gupta, & Delery, 2005; Shaw, 2011). Based on these findings of a decrease in human and social capital, an associated decrease in important intangible client information, and an increase in the workloads of remaining employees, one can predict that even on a global dataset of microfinance institutions, staff turnover will increase credit risk.

In light of the above arguments, I propose the following hypothesis.

Hypothesis 1: Higher staff turnover in microfinance institutions leads to an increase in credit risk.

2.2 The moderating role of female leadership

Female leaders and female leadership style

As hypothesized, high staff turnover may lead to an increase in credit risk in microfinance institutions. Some suggested solutions to mitigate its effect may lie in the ability of microfinance institutions to ensure the transfer of information between departing and replacement loan officers, to efficiently manage the

replacement process, and to maintain the motivation of the employees (Drexler & Schoar, 2014). In what follows I argue that the leadership, and specifically the female leadership, of MFIs can facilitate the implementation of these solutions.

The upper echelons theory of Hambrick & Mason (1984) provides a suitable basis for understanding the moderating role of female leadership in the relationship between staff turnover and performance. The theory states that an organization tends to reflect the characteristics of its top leaders (Hambrick & Mason, 1984). In other words, leadership characteristics such as age, gender, experience, and education, as well as other human factors such as individual experience, values, and personalities, can influence a leader's behavior and decisions and, ultimately, organizational outcomes (Hambrick & Mason, 1984). Such leadership characteristics have even been shown to influence the culture of an organization (Cameron et al., 2006; Schein, 2004). Therefore, similar to prominent leadership studies (e.g., Eagly, Johannesen-Schmidt, & Van Engen, 2003; Eagly & Carli, 2003), I will focus on the gender of the leader as an influential characteristic for organizational outcomes.

Organizational and leadership studies tend to attribute a leadership advantage to women over men mainly due to differences in their leadership styles (Eagly, 2007; Eagly & Carli, 2003). Leadership styles may be influenced by gender roles assigned by society (Bullough et al., 2021; Eagly, 2007). For example, the leadership style of women is characterised by stereotypical "female" traits such as being empathetic, collaborative, and prosocial, whereas the leadership style of men is characterized by stereotypical "male" traits such as being competitive and goal-oriented (Eagly, Johannesen-Schmidt, & Van Engen, 2003). As such, female leaders tend to adopt a transformational leadership style whereas male leaders are more inclined toward a transactional leadership style (Eagly, 2007; Eagly & Carli, 2003).

The transformational leadership style characterizes leaders as role models and mentors to subordinates as well as more likely to promote organizational goals and values, whereas the transactional leadership style characterizes leaders as more likely to appeal to employees' self-interest (Eagly, 2007; Vecchio, 2002; Menguc, Auh, & Shih, 2007). Moreover, transformational leadership has been characterized as encouraging participation and collaboration among the employees of a firm

(Post, 2015; Eagly, Johannesen-Schmidt, & Van Engen, 2003). It follows that in firms with high staff turnover and associated organizational change the transformational leadership style associated with female leaders tends to be viewed as more effective than the transactional style associated with men (Eagly, 2007; Eagly & Carli, 2003; Judge & Piccolo, 2004). As a result, prominent studies in the literature attribute a leadership advantage to women (e.g., Post, 2015; Eagly & Carli, 2003).

Similarly, it has been suggested that differences in the way men and women perceive power can also translate to a female leadership advantage (Ruiz-Jiménez, del Mar Fuentes-Fuentes, & Ruiz-Arroyo, 2016; Krishnan & Park, 2005). Men tend to wield their power in an authoritarian way so as to exercise control over others whereas women tend to view their power in terms of the sharing of knowledge and information (Ruiz-Jiménez et al., 2016). In fact, empirical evidence shows that leaders that embody such stereotypical female traits encourage communication within an organization (Yang, 2007) since they are able to signal the importance of information sharing (Lee et al., 2010).

The above-described female leadership advantage manifests itself in various organizational situations. First, women have been shown to present advantages as leaders of organizational teams. Post (2015) argues that the interpersonal relational style associated with female leaders is an important feature in ensuring the coordination and cooperation of teams, especially those that are large, diverse, and geographically dispersed. Relatedly, Manello et al. (2020) highlight that female leaders are good at developing networks which presents firm performance advantages.

Second, women have been shown to present advantages as leaders in times of crisis. In particular, the interpersonal relational style associated with women is considered a requirement for effective crisis resolution (e.g., Post, Latu, & Belkin, 2019; Kahn, Burton, & Fellows, 2013). Female leaders can elicit trust and confidence among employees, especially in a crisis where the consequences are expected to be harmful to the firm (Post et al., 2019). Moreover, female leadership tends to encourage employee feedback (Melero, 2011) which can also be an advantage in crisis situations. Although it has been shown that women tend to be allocated leadership positions in times of crisis, referred to as the “glass cliff”

(Ryan & Haslam, 2005), their tendency to succeed despite their overrepresentation in precarious positions of leadership cannot be overlooked.

Third, women have been shown to present advantages as leaders in times of organizational change. It has been suggested that female leaders may be better at implementing organizational change because of their emotional and interpersonal relational style (Paton & Dempster, 2002). These leadership characteristics ease the organization's transition as they facilitate communication and ensure "understanding, commitment and a shared perspective" (Paton & Dempster, 2002, p. 542) within the changing organization.

The aforementioned female leadership advantages are mainly observed in for-profit firms. What about in microfinance institutions, particularly those with high staff turnover? It is to this question that I turn next.

Female leadership advantage in microfinance

Microfinance is considered a women's business in the sense that it provides financial services first and foremost to women excluded from mainstream financial services (Strøm et al., 2014). As such, MFIs tend to view women's empowerment as an important element of their social mission, as reflected in the high proportion of female clients compared to male clients (Mersland, Nyarko, & Szafarz, 2019).

Moreover, microfinance is considered a women's business also in the sense that it is significantly associated with female leadership. In fact, compared to for-profit firms, microfinance institutions are recognized for having a higher percentage of female leaders (Strøm et al., 2014; Hartarska et al., 2014). Generally, female leaders are described as being more socially oriented than their male counterparts, suggesting that they are more likely to uphold the social objectives of such mission-driven businesses (Périlleux & Szafarz, 2015). Female leaders have even been shown to present financial performance advantages for microfinance institutions since they tend to be more knowledgeable about the needs of the targeted market of female clients (Strøm et al., 2014; Hartarska et al., 2014). In terms of the employees, some studies argue that through role modeling, female leaders in microfinance can provide a motivated and productive female workforce (Périlleux & Szafarz, 2021).

Based on the advantages of female leadership discussed above, it would be worthwhile to examine whether female leadership also mitigates the effects of staff turnover on performance in microfinance. There are several reasons to suppose that it does. First, female leaders have traits that tend to fit with a group-oriented culture (e.g., Gibberson et al., 2009; Yang, 2007). For example, female leaders tend to promote cooperation and information sharing in a firm (Mohr et al., 2012; Gibberson et al., 2009). In an empirical investigation on the staff turnover–performance relationship, Mohr et al. (2012) find that firms that have a group-oriented culture experience less harmful performance outcomes due to staff turnover compared to those that do not. Extending this finding to microfinance, we can expect a female leader to facilitate information sharing, which is important for preserving the relationship between the firm and clients when staff turnover occurs (Drexler & Schoar, 2014). Replacement loan officers who have received information about clients from departing loan officers have a frame of reference when dealing with the newly assigned clients, thereby easing the process of client handover. Similarly, female leadership may also present advantages where new hires are concerned as it may make the socialization of new hires easier. Specifically, the new hires are more likely to get the necessary guidance and support from their colleagues under a female leader, who prioritizes organizational goals, than under a male leader, who prioritizes individual goals (Mohr et al., 2012).

Second, female leaders tend to be more supportive of employees' participation in the firm's decision-making process relative to their male counterparts (Post, 2015; Eagly & Carli, 2003). This may present an advantage in high staff turnover situations in terms of the reassignment of clients (whose loan officer has left) to the remaining employees in the MFI. For example, under female leadership, the remaining employees may be less reluctant to voice their opinions on whether or not they can take on more clients and less reluctant to provide viable suggestions based on the situation, ultimately ensuring that they are not overburdened with new clients.

Third, female leaders in microfinance present advantages in understanding clients' needs (especially women's), and hence in designing suitable products for them (Strøm et al., 2014; Hartarska et al., 2014). This could garner loyalty from the clients toward the microfinance institutions despite loan officer replacement,

especially if the products and services that they need are not easily attainable at alternative firms.

In light of the above arguments, I propose the following hypothesis.

Hypothesis 2: Female leadership in microfinance institutions mitigates the negative effect of staff turnover on credit risk.

3. Data and Variables

3.1 Data

The data used in this study is an unbalanced panel of 294 microfinance institutions from 70 countries for the years 1998–2018. The data comes from two sources of microfinance data: microfinance rating agencies and the now publicly available Microfinance Information Exchange (MIX).

The rating data is taken from 5 prominent microfinance rating agencies:- Crisil, M-Cril, Microfinanza, Planet Rating, and MicroRate. These rating agencies are approved by the Consultative Group to Assist the Poor (CGAP) of the World Bank and their status as external agencies increases the credibility and transparency of the data (Beisland, Mersland, & Randøy, 2014). Rating agencies evaluate the governance, management, and financial and social performance of microfinance institutions. Various influential microfinance studies have used rating data, such as Zamore, Beisland, & Mersland (2019) and Lensink et al. (2018).

The MIX data is self-reported by microfinance institutions and is considered one of the most comprehensive sources of microfinance information (Zhao & Wry, 2016). As of 2020, this data has been made publicly available as part of the World Bank data catalog.[1] It contains information on the operations, products, and financial and social performance of microfinance institutions.

The two datasets are combined based on MFIs that exist in both the rating data and the MIX data. This is because each dataset contains some additional information

[1] https://datacatalog.worldbank.org/dataset/mix-market

not covered by the other database; after all, no data source perfectly represents the microfinance industry. As far as I know, this is the first study to combine these two datasets.

3.2 Variables

Dependent Variable

In this study, credit risk is the dependent variable. Credit risk is deemed the best performance variable because the survival of microfinance institutions is highly reliant on its efficient management (Armendariz & Mordurch, 2010; Cull et al., 2009). In fact, the inability to manage credit risk explains in large part the failure of many microfinance institutions (Cull et al., 2009). In recent years, microfinance institutions have adopted innovations such as group lending, progressive lending, and relationship lending in a bid to effectively manage credit risk (Postelnicu, Hermes, & Szafarz, 2014; Dixon et al., 2007). Moreover, the vital importance attached to the screening and monitoring of clients (Labie et al., 2015) is a further indicator of the importance of considering credit risk as the variable of interest.

The credit risk variable used is a combined measure consisting of portfolio at risk after 30 days (PaR30) and the write-off ratio. Together, these two measures proxy the total credit risk in an MFI (e.g., Zamore et al., 2019; Gonzalez, 2010). PaR30 represents the amount of risk from loans in arrears for more than 30 days relative to the gross loan portfolio, while the write-off represents the amount of unrecoverable loans that have been written off for a given outstanding loan portfolio (Zamore, 2018; Cull et al., 2009). Generally, most microfinance institutions record a loan as PaR30 after 30 days; however, the decision on when to write a loan off varies, making PaR30 vary across MFIs. For instance, some MFIs might keep the loans in PaR30 for a year before writing them off whereas others might write them off after 90 days. Therefore, combining these two variables enables one to get a more realistic view of credit risk in an MFI and a more comparable measure across MFIs (Zamore et al., 2019).

Independent Variable

The main independent variable is staff turnover, which represents the proportion of employees leaving the firm. It is defined as the ratio of employees who left the MFI in a year to the total number of employees in the MFI at the beginning of the

year. In this study, an overall measure of staff turnover is used and no distinction is made between voluntary and involuntary turnover. After all, the focus of the study is on the impact of employee departures (of any kind) on credit risk in the MFI.

Moderator Variable

The moderator variable of female leadership is proxied by a dummy variable for female CEO. Emphasis is given to the CEO as she is the most influential person in a firm due to her leadership and decision-making roles (Mersland, Beisland, & Pascal, 2019; Pascal, Mersland & Mori, 2017). The influential role of the CEO in MFIs is reinforced by the fact that MFIs tend to have fragmented ownership, ultimately increasing the CEO's discretion (Mersland, 2009). According to Galema, Lensink, & Mersland (2012), the CEO of a microfinance institution, and particularly an NGO, tends to have more power than the CEOs of any other type of firm. Empirical evidence also shows that CEO characteristics such as business education (Pascal et al., 2017) and female gender (Strøm et al., 2014) enhance microfinance performance. Hence, the focus of this study is on female CEOs.

Control Variables

For control variables, commonly used microfinance-specific variables are considered. These include MFI age, which indicates the number of years that the MFI has been in operation, MFI size, which measures the natural logarithm of total assets (e.g., Hartarska, 2005), and market of operation, which indicates the MFI's main market of operation, e.g., urban, rural, or a combination of the two. There are several credit methods, such as individual lending, group lending, and village banking, as well as several ownership types, such as banks, NGOs, non-bank financial institutions, credit unions, and cooperatives (Mersland, 2009). Dummy variables are used to control for group lending (Ghatak & Guinnane, 1999) and MFI type, due to potential differences in credit risk management across firms (Galema et al., 2012).

In addition, other firm-level variables that might influence credit risk are considered, such as proportion of female borrowers, number of borrowers per staff member, and loan size. There is mounting anecdotal and empirical evidence that female borrowers tend to have lower default rates than male borrowers, and hence are less risky (D'Espallier, Guérin, & Mersland, 2011). The number of borrowers

per staff member can be viewed as a proxy for employee workload since the more clients one has, the more difficult it becomes to monitor all loans effectively. For loan size, empirical studies in some microfinance contexts, such as Sub-Saharan Africa, find that higher loan sizes are associated with higher credit risk (Chikalipah, 2018). This runs counter to the perception that smaller loans tend to be riskier; see, e.g., Ali & Daly (2010) in the banking literature.

Finally, we also consider country-level and time control variables. Specifically, we consider the growth of the gross domestic product adjusted for purchasing power parity (GDP $PPP) in the MFI country of operation to control for the potential influence of economic development, as well as the Human Development Index (HDI) to control for the level of human development in the country. We also include yearly dummy variables to control for potential differences over time. Descriptive statistics of the variables are shown in Table 1.

Table 1: Descriptive Statistics

Variable	Description of variables	Obs	Mean	Std. Dev.	Min	Max
Credit risk	Sum of portfolio at risk and write-off ratio	1,293	0.062	0.076	0	0.737
Staff turnover	Proportion of employees departing MFI per year	1,293	0.196	0.146	0	0.7
Female CEO	Dummy variable CEO 1=female, 0=male	1,293	0.272	0.445	0	1
MFI size	Logarithm of total assets	1,293	15.971	1.476	10.047	20.085
NGO	1 for NGO MFIs, 0 otherwise	1,293	0.525	0	0	1
MFI age	MFI years of operation	1,293	14.248	8	0	57
MFI market	Main market of operation: 1=rural, 2=rural and urban, 3=urban	1,293	2.080	0.625	1	3
Group lending	Where 1= group lending method,0 otherwise	1,293	0.388	0.488	0	1
Female borrowers	Proportion of female clients in MFI	1,293	0.639	0.238	0	1
Loan size	Average loan size scaled by GNI	1,293	0.213	0.393	0.005	7.034
Borrowers/staff	Average number of borrowers per staff member	1,293	137.023	89.967	1	679
Logborrowersperstaff	Logarithm of borrowers/staff	1,293	4.723	0.668	0	6.521
GDP growth	Growth of gross domestic product per capita	1,293	5.090	4	-14.15	34.466

HDI	Human Development Index in country of operation	1,293	0.632		0	0.268	0.832

In the above descriptive statistics, we observe that the average staff turnover of the MFIs is 19.6% per year whereas the average credit risk is 6% of the loan portfolio. In terms of leadership, 27% of the MFIs in our sample have a female CEO. This may be considered relatively high compared to firms in the for-profit sector, where female CEOs remain far less common. For example, a few prominent studies show the representation of female CEOs ranging from 1 percent to 10 percent in for-profit firms (e.g., Palvia, Vähämaa, & Vähämaa, 2020; Faccio, Marchica, & Mura, 2016; Palvia, Vähämaa, & Vähämaa, 2015).

Regarding the firm-related control variables, the MFIs in our sample have an average age of 14 years. On average, MFIs tend to serve both rural and urban markets, approximately 38% practice group lending, and 52% are NGOs. The majority of clients are women (63%), and the average loan size is 21% of the GNI per capita ($PPP adjusted). Each staff member serves 137 clients on average.

Regarding the macroeconomic variables, MFIs tend to operate in countries with an average GDP growth of 5.09%. Also, the average HDI index value is 0.63, implying that MFIs tend to operate in countries with relatively low levels of human development.

Table 2 shows low correlations among the regressors, suggesting that multicollinearity might not be a severe problem in the regressions. As observed from the table, staff turnover and credit risk are positively correlated at 0.10 whereas female CEO and credit risk are negatively correlated at 0.07. Also, staff turnover and HDI have a positive correlation of 0.32. The highest correlation is between female CEO and its interaction with staff turnover at 0.72, which is below the standard threshold of 0.9 stipulated by Hair, Black, Babin, & Anderson (2010).

Table 2: Correlation Matrix

	Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Credit risk	1													
2	Staff turnover	0.1	1												
3	Female CEO	-0.07	0.05	1											
4	Staff turnover*Female CEO	-0.05	0.42	0.72	1										
5	MFI size	-0.11	0.11	-0.05	-0.01	1									
6	NGO	0.04	0.05	0.12	0.09	-0.05	1								
7	MFI age	0.04	-0.02	0.08	0.04	0.29	0.21	1							
8	MFI market	0.14	0.05	0.11	0.11	0.04	0.13	-0.01	1						
9	Group lending	-0.17	0.04	0.14	0.18	-0.24	0.13	-0.08	-0.2	1					
10	Female borrowers	-0.19	0.01	0.23	0.2	-0.17	0.23	0.01	-0.07	0.62	1				
11	Loan size	0.06	-0.08	-0.09	-0.1	0.04	-0.19	-0.05	0.05	-0.23	-0.29	1			
12	Log borrowers per staff	-0.22	-0.09	0.15	0.1	0.05	0.18	0.1	-0.15	0.41	0.45	-0.52	1		
13	GDP growth	-0.18	-0.07	-0.02	-0.05	-0.12	-0.16	-0.14	-0.09	0.11	0.01	0	0.03	1	
14	HDI	-0.03	0.32	0.17	0.19	0.21	0.19	0.13	0.13	-0.18	-0.14	-0.16	-0.19	-0.15	1

4. Methodology

Panel data regressions are used to analyze the data in this study. One of the main advantages of using panel data compared to cross-sectional data is that it controls for unobserved fixed effects that may be correlated with the regressors. Hence, panel data helps to reduce any potential bias in the results that is likely in cross-sectional data. However, if regressors are not correlated with fixed effects, a random effects estimation would be efficient. To determine whether the fixed effects or random effects panel data estimation is appropriate, the Hausman specification test is performed (Hausman, 1978). The null hypothesis is not rejected in the model with and without controls, suggesting that the random effects (RE) specification is appropriate. The empirical model is written as:

$$Creditrisk_{it} = \beta_0 + \beta_1 Staffturnover_{it} + \beta_2 Staffturnover * FemaleCEO_{it} + \lambda Controls_{it} + \nu_i + \varepsilon_{it},$$

where $Creditrisk_{it}$ denotes the credit risk for MFI *i* at time *t*, $Staffturnover_{it}$ denotes the staff turnover of MFI *i* at time *t*, and $Staffturnover*FemaleCEO_{it}$ denotes the interaction term between staff turnover and female leader to determine the moderating impact of female leadership. $Controls_{it}$ denotes a vector of control

variables for MFI i at time t and v_i and $\varepsilon_{it,}$ represent the within error and the idiosyncratic error term. β_0 is the intercept of each entity and β_1, $\beta_{2,}$ and λ represent the coefficients of the regressors.

However, the relationship we study is prone to endogeneity issues such as simultaneity bias. It is possible that the outcome variable (credit risk) could impact staff turnover either voluntarily when demotivated employees leave or involuntarily when poor performing employees are fired. To address these issues, we use the system generalized method of moments (GMM) estimator as proposed by Arellano & Bond (1991) and Blundell & Bond (1998), which is appropriate for both balanced and unbalanced panels. The system GMM approach considers both difference and level equations. The difference equation considers lagged values as instruments whereas the level equation considers lagged differences as instruments.

To ensure the reliability of system GMM estimates, tests for serial correlation and the Hansen test for over-identification restrictions must be performed (Arellano & Bond, 1991). The test for first-order serial correlation is rejected and the test for second order serial correlation is not reject suggesting that there is no second order serial correlation (Arellano & Bond, 1991). Moreover, failure to reject the assumption of no second-order serial correlation provides justification for the use of 2 lags in our analysis. Furthermore, the Hansen test for over-identification restrictions confirms that the instrument set used in our model is valid.

5. Results

5.1 Baseline Results

In Table 3, Model 1 reports random effects results for the relationship between staff turnover and credit risk, while Model 2 reports random effects results for whether female leadership moderates the staff turnover–credit risk relationship. Each model includes firm-level and macroeconomic control variables.

Table 3: Relationship between Staff Turnover and Credit Risk (Random Effects)

VARIABLES	(1) RE	(2) RE
Staff turnover	0.0534**	0.0770**
	(0.0231)	(0.0315)
Female CEO	-0.000408	0.0145
	(0.00683)	(0.00988)
Staff turnover*Female CEO		-0.0712**
		(0.0341)
MFI size	-0.00751***	-0.00764***
	(0.00255)	(0.00250)
NGO	0.00776	0.00816
	(0.00689)	(0.00682)
MFI age	0.000739*	0.000756*
	(0.000440)	(0.000423)
MFI market	0.0109*	0.0107*
	(0.00652)	(0.00642)
Group lending	-0.00549	-0.00481
	(0.00972)	(0.00963)
Percentage of female borrowers	-0.0530**	-0.0532**
	(0.0223)	(0.0220)
Loan size	-0.0250***	-0.0243***
	(0.00921)	(0.00915)
Log borrowers per staff member	-0.0254***	-0.0249***
	(0.00800)	(0.00799)
GDP growth	-0.00302***	-0.00308***
	(0.000764)	(0.000766)
HDI	-0.129***	-0.132***
	(0.0315)	(0.0315)
Constant	0.398***	0.385***
	(0.0575)	(0.0584)
Observations	1,293	1,293
Number of MFIs	294	294
R squared	0.1783	0.1836
Hausman test (p-value)	0.4123	0.4416
Year controls	YES	YES

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

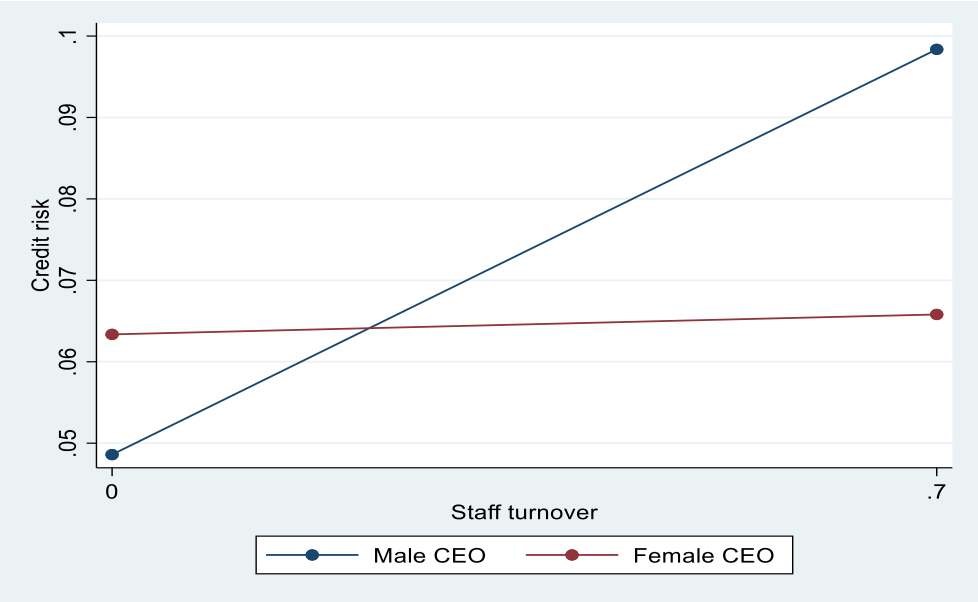
The results from Model 1 show that high staff turnover leads to high credit risk in microfinance institutions, as predicted in Hypothesis 1. In other words, these results highlight that staff turnover does indeed have detrimental outcomes in terms of credit risk for microfinance institutions. This could be mainly due to the break in the relationship between clients and employees in microfinance (e.g., Canales & Greenberg, 2016). Indeed, microfinance employees play the main role in establishing relationships with clients, not only in order to acquire new clientele, but also in order to determine their creditworthiness and monitor their repayment behavior (Labie et al., 2015).

In Model 2, the results confirm that the effects of staff turnover on credit risk are moderated in female-led MFIs. That is, despite the ubiquitous nature of high staff turnover in social enterprises like microfinance institutions, its harmful impact on credit risk can be mitigated when the microfinance institution employs a female CEO, as predicted in Hypothesis 2. This may stem from the female leadership style, which facilitates the development of an organizational culture of information sharing, an important factor for mitigating staff turnover effects (Drexler & Schoar, 2014; Mohr et al., 2012). Furthermore, female leadership in microfinance is beneficial not only for the microfinance clients (e.g., Strøm et al., 2014), but also for the employees, suggesting that female leaders play a potential motivational role in employee performance (e.g., Perilleux & Szafarz, 2021).

Furthermore, it is important to note from our regressions in Table 3 the effect of some of the control variables. Specifically, the results show that bigger MFIs and those with a high proportion of female borrowers tend to have less credit risk. It can also be observed that larger loan sizes are characterized by lower credit risk. This could be attributed to innovative practices in microfinance such as progressive lending where clients who exhibit good repayment behavior can obtain larger loans. Contrary to expectations, the number of borrowers per staff member does not seem to have a detrimental effect on credit risk. A similar finding was obtained by Inekwe (2019) in his study on lending risk in MFIs. For the macroeconomic factors, firms operating in countries with high GDP growth and HDI have significantly lower credit risk.

To visualize this moderating effect, the interaction between staff turnover and female leadership is plotted in Figure 1. It is quite evident that there is a positive relationship between staff turnover and credit risk. Moreover, it is observed that the impact of staff turnover on credit risk is lower in MFIs with a female CEO than in those with a male CEO. In other words, the effect high staff turnover has on credit risk is mostly driven by male leaders.

Figure 1: The Moderating Effect of a Female CEO on the Staff turnover-Credit Risk Relationship



5.2 Alternative Estimations

In Table 4, system generalized method of moments (GMM) results are presented as alternative estimations to the random effect results. Models 1 and 2 present results for Hypothesis 1 whereas Models 3 and 4 present results for Hypothesis 2. The standard errors in the models are Windmeijer-corrected[2] and attempts are made to limit the number of instruments. According to Roodman (2009), one of the limitations of the system GMM is the proliferation of instruments, which leads to overfitting endogenous variables. Nevertheless, two potential solutions are suggested to reduce the number of instruments, namely, limiting the lags and collapsing the instrument set (Roodman, 2009). Specifically, lag limits[3] are used in Models 1 and 3 whereas the instrument set is collapsed[4] in Models 2 and 4. It is evident that Models 2 and 4 have a significantly lower number of instruments[5] than Models 1 and 3; nevertheless, the results can be considered robust even after reducing the number of instruments. The Hansen test statistics in the different

[2] Windmeijer correction has only a minor effect on standard errors in the regressions.

[3] The number of lags is restricted to 4 in the regressions.

[4] The instrument set is collapsed using the "collapse" suboption in Stata as per Roodman (2009).

[5] Although the reduction of instruments is advised, there is no evidence for an acceptable and safe number of instruments (Roodman, 2009).

models also seem to be of relatively acceptable values as per Roodman (2009), that is, not less than 0.1 and not above 0.25, further indicating less bias.

The system GMM results in Table 4 are observed to be qualitatively the same as the random effects results in Table 3. That is, high staff turnover leads to high credit risk (Models 1 and 2) and female leadership mitigates this effect (Models 3 and 4). The lagged credit risk also has a positive influence on credit risk, showing the dynamic nature of the relationship studied. Therefore, the system GMM results taking into consideration the potential endogeneity issues inherent in the analysis are in accordance with the random effects results for our variables of interest.

Table 4: Relationship between Staff Turnover and Credit Risk (System GMM)

VARIABLES	(1) Credit risk	(2) Credit risk	(3) Credit risk	(4) Credit risk
Staff turnover	0.117**	0.0864**	0.148**	0.0794**
	(0.0498)	(0.0354)	(0.0627)	(0.0325)
Female CEO	0.00159	-0.000520	0.0283**	0.0139*
	(0.00541)	(0.00413)	(0.0126)	(0.00801)
Staff turnover*Female CEO			-0.130**	-0.0715**
			(0.0564)	(0.0333)
MFI size	-0.00357**	-0.00503**	-0.00310*	-0.00470**
	(0.00165)	(0.00223)	(0.00172)	(0.00199)
NGO	0.00257	0.00832**	0.000625	0.00677*
	(0.00360)	(0.00405)	(0.00412)	(0.00378)
MFI age	0.000398	0.000442	0.000492	0.000330
	(0.000381)	(0.000364)	(0.000307)	(0.000321)
MFI market	0.00156	0.00462	0.00278	0.00517
	(0.00384)	(0.00335)	(0.00370)	(0.00342)
Group lending	-0.00739	-0.00791	-0.00357	-0.00539
	(0.00557)	(0.00497)	(0.00567)	(0.00459)
Percentage of female borrowers	-0.0222	-0.0277***	-0.0219*	-0.0278***
	(0.0154)	(0.0105)	(0.0125)	(0.0105)
Loan size	-0.00132	-0.00759	-0.00398	-0.00850
	(0.00578)	(0.00626)	(0.00686)	(0.00620)
GDP growth	-0.00196**	-0.00168***	-0.00224***	-0.00167***
	(0.000802)	(0.000597)	(0.000796)	(0.000577)
HDI	-0.0787***	-0.0819***	-0.0842***	-0.0716***
	(0.0264)	(0.0266)	(0.0303)	(0.0240)
Log borrowers per staff member	-0.00167	-0.00445	-0.00250	-0.00473
	(0.00647)	(0.00509)	(0.00626)	(0.00500)
Constant	0.139***	0.182***	0.132***	0.178***
	(0.0380)	(0.0591)	(0.0411)	(0.0542)
Observations	1,239	1,239	1,239	1,239

Number of MFIs	291	291	291	291
AR(1) test p-value	0.007	0.026	0.007	0.026
AR(2) test p-value	0.812	0.988	0.832	0.954
Hansen test p-value (dfs)	0.172(140)	0.215 (33)	0.226(140)	0.219 (33)
Number of instruments	174	67	175	68
Instrument adjustments	Lag Limits	Collapse	Lag Limits	Collapse
Year controls	YES	YES	YES	YES

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. AR (1) and AR (2) are Arellano and Bond tests for first-order and second-order serial correlations, respectively. dfs denotes degrees of freedom. The adjustments involve Windmeijer corrections of standard error estimates, of small sample adjustments, and of limitations on the instrument set.

6. Discussion and Conclusion

The purpose of this study is to achieve two objectives: first, to determine the relationship between staff turnover and credit risk in microfinance institutions and, second, to determine whether female leadership moderates this relationship. This paper uses a global database of 294 rated microfinance institutions to perform the analyses.

The results confirm that high staff turnover has a detrimental effect on credit risk in microfinance institutions. This is in line with previous studies that investigate this relationship in microfinance institutions operating in the Latin American context (e.g., Drexler & Schoar, 2014). Thus, this study suggests that the harmful effect of staff turnover on credit risk seems to be generalizable to MFIs in other regional contexts. Since staff turnover leads to the loss of not only human capital but also social capital, such a finding may not be all that surprising considering the vital role of microfinance employees in credit risk management (van den Berg et al., 2015; Agier, 2012). This is despite the claim made by some that a too close relationship between the microfinance employee and client may be risky due to the tendency to shift loyalty from the MFI to the client (Aubert, De Janvry, & Sadoulet, 2009). Indeed, it is well established in human resource literature that staff turnover, especially where critical employees are leaving, can have detrimental effects on a firm (Tanova & Holtom, 2008). In addition, other studies argue that losses in social capital compared to human capital due to staff turnover can have even more harmful performance effects (e.g., Shaw et al., 2005), which could provide justification for the finding in this study.

Although organizational studies tend to focus on the negative effects of staff turnover, some argue that the focus should also be on understanding the conditions

under which staff turnover may be more or less harmful to the firm (Ton & Huckman, 2008). In this study, we extend this line of discussion by focusing on female leadership as an internal characteristic of microfinance institutions that may moderate the relationship between staff turnover and credit risk. Our results suggest that the negative effect of high staff turnover on credit risk performance is smaller in female-led microfinance institutions. These results seem to be in line with the widely held view that female leaders present advantages for performance in microfinance institutions (e.g., Périlleux & Szafarz, 2015; Strøm et al., 2014). Female leaders seem to manage more efficiently than male leaders when MFIs are experiencing high staff turnover. For instance, they may be more efficient in hiring and firing. It is possible that staff turnover may result from female leaders firing poor performers who are not aligned with the firm's mission and do not fit the organizational direction under female leadership. Thus, the findings of our study imply that female leaders present advantages not only in terms of clientele as is suggested by various microfinance studies (e.g., Strøm et al., 2014; Hartarska et al., 2014), but also in terms of personnel management.

In fact, a study by Ohana & Meyer (2010) highlights that in social enterprises (of which microfinance institutions are a subset), a leader's ability to listen to employees' opinions, share information with them, and encourage the employees to be more involved in the firm can aid in mitigating and even preventing staff turnover effects. Ohana & Meyer (2010) build on leader–member exchange, a human resource concept that has mainly been examined in the for-profit sector. It is concerned with the quality of the relationship between a leader and the subordinates (Gerstner & Ray, 1997) and how the leader influences employee behavior (Boon & Biron, 2016). Although based on dyadic relationships, insights from this reasoning can help provide justification for our findings in the microfinance context. After all, in microfinance institutions, female leaders seem to possess the characteristics that can mitigate staff turnover effects.

Drexler & Schoar (2014) recommend information sharing as an important factor for ensuring that high staff turnover does not have negative effects on microfinance performance. Through their leadership style (Yang, 2007; Crawford, 2005; Post, 2015) and ability to transform the organizational culture (Gibberson et al., 2010) to one that encourages cooperation and information sharing among employees, female leaders in microfinance may thus present information-sharing advantages

within the firm that persist despite high staff turnover. The relationship between leadership and information sharing in the firm has been mainly explored in the knowledge management literature (e.g., Carmeli, Atwater, & Levi, 2011; Lee et al., 2010). In this line of research, the management of knowledge in the firm is considered vital in order for firms to maintain a competitive advantage (Carmeli et al., 2011). Comparatively, in microfinance institutions, information is very important due to the client's information opacity which motivated the adoption of relationship lending (Galariotis, Villa, & Yusupov, 2011). This study therefore suggests female leadership as another factor that facilitates information exchange among employees even after employee changes due to staff turnover.

From a different perspective, the results on female leadership as a moderator in the staff turnover–credit risk relationship in microfinance seem to coincide with those of studies that argue for the female leadership advantage in precarious or risky situations (e.g., Post et al., 2019). This female leadership advantage emerges not only in internal organizational crises, but also in the event of external shocks that have an impact on the firm. For instance, evidence shows the ability of female leaders to remain risk averse relative to male leaders during the global financial crisis (Palvia, Vähämaa, & Vähämaa, 2015) and in the aftermath of real estate shocks that affected the banking industry in the United States (Palvia,Vähämaa, & Vähämaa, 2020). On a larger scale, recent empirical evidence also shows that countries with female leaders have been at the forefront in effectively managing the Covid-19 global pandemic compared to male leaders (Garikipati & Kambhampati, 2021), further highlighting the advantages associated with female leadership in organizational crises.

Broadly speaking, the finding on the moderating role of female leadership can have two implications. First, it suggests the need for firms to encourage the promotion of women to top leadership positions (Strøm et al., 2014; Matsa & Miller, 2011). It is also likely that the management teams in female-led microfinance institutions may encourage the hiring of more female staff especially in markets with strict cultural norms in terms of gender where female staff are reported to be more suitable for serving female clients (e.g., Ahmad, 2017), thus contributing to women's empowerment. Second, it also hints at the need for male leaders to adopt stereotypical "female" leadership styles that encourage a collaborative culture

among the employees due to the performance advantages it presents (e.g., Post, 2015).

However, like any other study, this study has some limitations that can create opportunities for future research. Firstly, the data does not permit distinguishing between voluntary and involuntary turnover. Although, observations from our correlation matrix do not suggest the risk of high correlation between a female CEO and staff turnover, it is possible that female leadership may be more correlated with one of the two turnover types. Future studies can investigate this potential relationship. Secondly, some of the arguments are based on the tendency of female leaders to exhibit the transformational leadership style, together with its associated traits and benefits. However, it is worth acknowledging that in the business world where male leadership is normative, women may strive to adopt male leadership traits in an attempt to be an "ideal" leader (Rosette & Tost, 2010; Eagly & Karau, 2002). This study does not take this conformist tendency into account and thus future research could benefit from an in-depth qualitative study to understand the characteristics specific to female leaders in microfinance institutions. Thirdly, to explain the moderating effect of female leadership, influence on the organizational culture is considered. This aspect is not directly tested but it would be worth considering in future studies. Also, attempts have been made to address the potential endogeneity issues in this study by performing system GMM analyses. Nevertheless, it is worth acknowledging that no model is foolproof in eliminating endogeneity, and all such attempts are merely to reduce its effects (Ullah, Akhtar, & Zaefarian, 2018). Lastly, the performance variable of credit risk, although critical to microfinance institutions, may render it difficult to generalize these findings to other social enterprise types.

Overall, this study highlights the need to pay close attention to high staff turnover in microfinance due to its detrimental effect on effective credit risk management. It also highlights the importance of understanding the impact of female leadership in terms of the human resources of MFIs. Finally, it broadens the scope of microfinance literature to include the interaction between human resources, organizational performance, and female leadership.

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