BLACKLIST REPAYMENT HISTORY CREDIT INFORMATION EFFECT ON THE PERFORMANCE OF MICROFINANCE INSTITUTIONS IN KENYA.

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Abstract

Credit information sharing helps to avoid excess lending, enhancing access to funds to good loan payers and reducing non-performing loans. The objective of this study was to determine the effect of blacklist repayment history credit information on the performance of microfinance institutions in Kenya during a period when only negative information was being shared. The study adopted descriptive research design. The population of study was 54 from which a census was carried out hence no sampling was done. The reliability test showed that all the study variables were reliable thus suitable for further analysis. Descriptive statistics and regression analyses were used to analyze data. The study established that blacklist repayment history affects the performance of deposit taking microfinance institutions in Kenya. The study recommended the need to broaden the source of credit information by including utility companies so as to reduce cases of non-repayment of loans.

Keywords

Credit Information Sharing, Microfinance Institutions, Negative Information, Positive Information, Repayment History, Performance, Blacklist

1.1 Introduction

All over the developing world, Microfinance institutions have been increasingly trying to share more information about their clients' performance as a discipline device, but little is known about the consequences of such decisions. Previous developments in the theoretical and empirical literature have usually focused on the average effects of symmetric and universal increases in the information available to all lenders (Louto, 2007).

Research shows that information sharing is associated with broader credit markets and the alleviation of credit constraints (Jappelli and Pagano (2002), Love and Mylenko (2003), and Galindo and Miller (2001)). In addition, theoretical research on developed credit markets Padilla and Pagano (2000) and Vercammen (1995) suggests that exchanging detailed information on outstanding debt or client characteristics can dilute the clarity of default as a negative signal, possibly increasing default rates. In contrast, the few theoretical (McIntosh and Wydick (2007)) and empirical studies (Luoto et. al. (2007) available on microfinance markets suggest that the use of credit bureaus should reduce default (blacklist) rates.

1.1.1 Blacklist Repayment history Credit Information Sharing

In general, credit information systems started as regional and specialized institutions that shared commercial information. Credit information sharing institutions in the United States, United Kingdom, Australia, Japan and Argentina emerged spontaneously and can be traced back for the last 4 decades. All these countries, except for Argentina, have a high credit depth and a high ratio of reports per capita. The group of countries that started sharing information through a public registry of credit information like Mexico, Spain, France and Italy has a significantly lower depth both in credit and reports per person (Japelli, 2010)

Cheng (2010) observes that Japan's credit and information market are also deep and its bureaus originated spontaneously several decades ago. Nevertheless, the Japanese information market is very peculiar. In the seventies three specialized information agencies were formed each of them

using positive and negative information. The first agency collects information from banks; the second gathers consumers' information and the third specializes in information from commercial firms. Each generator of information provides data to only one of these agencies. Recently, these agencies started sharing their databases through a common network. There is an additional universal and national bureau, but the market is dominated by the 3 specialized agencies.
Among the countries were the bureaus had a spontaneous origin, the Argentinean case is very peculiar. Around 40 years ago, regional non-profit agencies that shared commercial information emerged. These agencies are organized around the local chambers of commerce. Currently there are more than 110 of these agencies, and besides commercial information they collect information from local banks. In addition to these regional institutions, private bureaus with national scope have existed for several decades. Despite the development of these institutions the credit and informational depth of Argentina are both relatively low (Cheng, 2010).

Turner (2008) reveals that South Africa has the most developed credit information sharing system compared with other African nations; South Africa has a highly advanced credit information system, and the capacity and skills to address any identified credit access problems. However, the country faces significant challenges in collecting data from the large, less formal economy. It has been argued that only smaller lenders willing to make costly investments in relationship banking are able to profitably extend credit to micro, small and medium enterprises. There is good reason to believe, however, that larger lenders, using rich data sources and information solutions, can profitably lend to SMMEs. Countries are also beginning to collect non-financial payment data (such as utility and telecom payments) when standard credit information is unavailable. However, such information is rarely collected in South Africa. Collecting more trade credit data from the informal sector could greatly expand access to credit for small and micro-enterprises

Information sharing can help lenders to distinguish good borrowers from bad ones. Lenders may, however, also lose market power by sharing information with competitors. Asymmetric information in the credit market increases the frequency of information sharing between lenders significantly. Stronger competition between lenders reduces information sharing. In credit markets where lenders may fail to coordinate on sharing information, the degree of information asymmetry, rather than lender competition, drives actual information sharing behavior (Minneti, 2013)
The systematic use of credit reports in assessing loan applications is one of the most remarkable developments in retail banking. Today, many loan approvals no longer take days or weeks, but are made in minutes, thanks to information derived from credit reports. . On the one hand, lenders benefit from information sharing, as it helps them to select good from bad loan applicants (Pagano and Jappelli, 1993) and overcome moral hazard on the part of borrowers (Vercammen, 1995; Padilla and Pagano, 2000; Klein, 1992). On the other hand, sharing information may expose lenders to increased competition because they release private information about their existing clients (Pagano and Jappelli, 1993). Banks may therefore be wary of sharing information in competitive credit markets, and may be particularly reluctant to share information with close competitors. Evidence suggests that the emergence of voluntary information sharing is related to information asymmetries and lender competition. From a theoretical perspective, the emergence of voluntary information sharing depends not only on the inherent degree of information asymmetries or competition in a credit market. It may also be subject to coordination failure between lenders, as for each lender the benefits of joining a credit bureau depend on the number of other bureau members.

Minnetti & Dobblas (2013) in an investigation on the consequences of lenders' information sharing using unique contract-level data from a credit bureau that serves the U.S. equipment finance industry they found evidence that lenders' information exchange has a beneficial impact on the repayment behavior of firms, reducing the incidence of delinquencies and foreclosures of loans and leases. This effect appears to be stronger for firms that are reputed to be less informational transparent such as small firms and riskier with lower credit ratings. They have also found that lenders' entry into the credit bureau reduces the size of contracts and increases the use of guarantees, suggesting that it is not necessarily that information sharing leads financiers to loosen lending standards. These findings are in line with the prediction that after lenders joins a credit bureau they become aware of the debt exposure of credit applicants and apply more stringent criteria for granting credit like extending smaller loans.

Janvry (2006) in a study on the demand and supply impacts if credit market information indicates that the strongest effect of improved information in the hands of lenders is seen through the screening of new clients, particularly individuals, and the ability to increase loan volumes faster than would otherwise have been the case. The bureau also causes a dramatic increase in the expulsion of existing clients. On the demand side, informing group members about the implications of a credit bureau induced a better repayment performance among members of solidarity groups, both through reduction in moral hazard and improved selection by the groups themselves. This demonstrates that credit bureaus are an efficient institutional innovation not only in assisting client selection by lenders and group borrowers alike, but that additional improvements are realized when borrowers clearly understand the implications of information sharing arrangements. Borrowers with good credit records are also able to take advantage of this information sharing to get access to more loans outside Genesis. However, use of reputation to access additional loans was differentially successful across categories of borrowers. It induced the more experienced clients to improve their credit records, but not the less experienced ones who in fact worsened their records when they exuberantly seized the opportunities opened to them by information sharing across lenders to increase their levels of indebtedness with outside lenders.

With the introduction of a credit bureau allowing the sharing of positive information among lenders, the adverse selection problem could be partially resolved for the lender, especially in individual loans. Information sharing should help prevent clients from taking multiple loans and thus hiding their true indebtedness (McIntosh & Wydick, 2005). Moral hazard should also be held in check as new incentives were introduced for borrowers to improve their repayment performance that now influences access to loans across the whole participating microfinance industry (Vercammen, 1995). Information sharing should thus be a major source of efficiency gains for lenders (Jappelli & Pagano, 1999; Campion & Valenzuela, 2001). Improved performance opens new opportunities to access more and better loans from others than the lender with whom reputation had been privately earned. This public information allows good borrowers to shop for larger and cheaper loans, thus moving up the credit ladder on the basis of information about their past good behavior (Galindo & Miller, 2001). Because lender profit cannot decrease from knowing more, lenders want to join a bureau to learn what the other lender knows, but fears suffering from the response when the other lender learns. Nothing is lost by sharing information on bad clients to whom one would never led again, whereas sharing information on one's most profitable clients carries great risk.

Behr and Sonnekalb (2012) in a study on effect of information sharing between lenders on access to credit, cost of credit and loan performance results point to a reduction in access to credit, an

increase in the cost of credit, and an improvement in loan performance as a result of the introduction of the credit registry.

In addition, the results suggest that the difference in the interest rate between loans approved after and loans approved before the improvement in information sharing, larger for SME than for micro loans. However, since this effect is only weakly significant and disappears when they control for loan characteristics. There is a statistically significant effect of improved information sharing on loan performance. The difference in the arrear probability between loans approved after and loans approved before the introduction of the credit registry is 3% points lower in the group of more affected SME borrowers. This effect is also economically meaningful as it represents approximately 35% of the overall sample average arrear occurrence of 8%. Changes in the interest rate can be a determinant of changes in loan performance because higher interest rates might induce greater risk-taking by clients or attract higher-risk clients. Overall, these results suggest that there is a loan performance improving effect through information sharing. On the contrary, there is no significant change in the probability of a loan application being approved induced by the introduction of the credit registry. It appears that the credit registry is either still too incomplete to provide the lender with meaningful information for screening purposes or the information provided only confirms the lender's internal assessments of loan applicants' credit risk. There is, however, a significant reduction of arrear probability for loans approved after the improvement in information sharing.

Research also supports the theory that information sharing reduces moral hazard. Madrid and Minetti (2009) find that if lenders enter credit information sharing institution, their borrowers improve their repayment performance delinquent payments on leases and loans decrease. Brown and Zehnder (2007) find empirical evidence that the lending market would collapse in the absence of an information sharing institution and reputational banking. However, their study also showed that establishing a credit registry encouraged borrowers to repay their loans by allowing lenders to identify borrowers with a good payment history.

Many studies have illustrated how comprehensive information helps lenders better predict borrower default. Kallberg and Udell (2003) found that historical information collected by a credit bureau had powerful default predictive power. A study by Barron and Staten (2003) showed that lenders could significantly reduce their default rate by including more comprehensive borrower information in their default prediction models. An analogous study specific to Brazil and Argentina found similar default rate decreases when more information was available on borrowers (Powell, et al. 2004).

Kenya's economic reform policies under Vision 2030 set out a clear commitment to a market economy and private sector led growth. One of the reforms for financial sector development seeks to improve stability, increase efficiency and expand credit access through the credit information sharing project

1.2 RESEARCH METHODOLOGY

Research design is the approach adopted by the study to answer the research questions (Sekaran, 2010). This study adopted the descriptive research design. Descriptive research involves describing the present status of a phenomenon, determining the nature of the prevailing conditions, practices, attitudes and seeking accurate descriptions (Kombo and Trump, 2006). In this case it involved gathering of data to determine the relationship between blacklist repayment history credit information and the performance of taking microfinance institutions in Kenya by considering the performance before and after the credit information sharing. Descriptive research design has been used in similar studies by Behr & Sonnelkalb, 2012 in a study in Albania on effects of Credit Information Sharing between lenders on access to credit, cost of credit and loan performance and

Dejanvry et al., 2010 in a study in Guatemala on the supply and demand side impacts of credit market information.

The population of this study was comprised of 54 credit managers from microfinance institutions which participate in credit information sharing in Kenya. A census was carried out hence no sampling was done.

Primary data was collected using a predetermined questionnaire from all the credit managers at the branch level. The questionnaire comprised of questions meant to meet the objectives of the study. Some questions were closed ended to enhance uniformity and others open ended to ensure maximum data is obtained. Questionnaires were self administered. Secondary data was obtained from Central Bank of Kenya. A pilot study was done to access the capability of the research instruments to collect the required data for the research (Bryman & Bell, 2003). Zikmund (2010) stresses the importance of pre-testing the questionnaire. The pilot testing helped in identifying and rectifying weaknesses in the questionnaire before the actual research was carried out using 4 credit managers from microfinance banks because they share quite a number of characteristics with the deposit taking microfinance institutions. Mugenda and Mugenda (1999) observes that a successful pilot study uses 1% to 10% of the actual sample size.

Validity is the degree to which a questionnaire captures information that reflects reality (Howard, 2008). The focus here is not necessarily on scores or items, but rather inferences made from the instrument. It involved a focus on content validity, construct validity, and criterion validity. Content validity considered whether or not the items on a given test accurately reflect the theoretical domain of the construct it claims to measure. This was measured through seeking of expert opinion on whether the instrument is appropriate. The construct validity of a measure is directly concerned with the theoretical relationship of a variable to other variables. This was ascertained by clearly defining the variable being measured, formulating the hypothesis based on theory underlying a variable and then testing the hypothesis logically and empirically. Criterion validity refers to the ability to draw accurate inferences from the existence of a current condition. It was measured as a coefficient of correlation between test scores and another of known validity (Howard, 2008).Repayment history was measured by looking the amount of non-performing loans and the provision for bad loans while the performance of microfinance institutions was measured in terms of interest income from loans.

1.3 Results and Discussion

1.3.1 Correlation results for blacklist repayment history and performance

Pearson correlation coefficient was used to determine whether there is a relationship that exists between repayment history and performance. A correlation analysis shows that ($r=-0.208$, $\alpha=0.05$) .This shows that there is a negative relationship between repayment history and performance. McIntosh, Sadoulet and De Janvry (2006) in a study on credit reference bureau impact on microfinance in Latin America found out that the administrative records showed that credit bureau use has a large and positive impact on loan performance.

A list of negative information often referred to as a blacklist, can encourage borrowers to repay obligations so as to stay off the list. The existence and use of such a database then enhances willingness to pay. However, as shown above, negative-only databases have several shortcomings compared to those with complete (both positive and negative) information. Negative information alone has less predictive power than positive and negative information combined. Decision tools, such as credit scoring, are difficult to develop without positive data. Databases with only negative

information then tend to focus only willingness to pay and not on enhancing predictions on repayment probabilities (Powell, 2004)

A database of positive and negative information assists borrowers in developing proof of a good payment history. The value that the debtor attaches to his or her good credit history is likely to be greater than the value associated with being off the blacklist, especially since most negative information databases enable borrowers to settle claims to remove themselves from the list. This prompts eventual repayment of obligations but does not provide strong incentives for borrowers to conduct themselves responsibly over longer periods of time. The greater the value of reputation collateral is to borrowers, the harder borrowers will work to maintain good standing. Thus, if it is known that the database is used extensively for credit decisions then willingness to pay risks will be reduced further. Again, this is particularly important for borrowers who lack physical collateral, such as low-income individuals or small firms. The finding of this study differs given that there is a negative relationship between repayment history and performance. The reason is that during the period under study only negative information was being shared. As a result the volume of loans decreases due to rejection of loan applications to those who have had past defaults.

Table 1.1: Correlation results for Blacklist repayment history and performance

Correlations

		Performance	Repayment History
Pearson Correlation	Performance	1.000	-.208
	Repayment History	-.208	1.000
Sig. (1-tailed)	Performance	.	.078
	Repayment History	.078	.
N	Performance	48	48
	Repayment History	48	48

1.3.2 Regression Results on the effect of blacklist repayment history on performance of Microfinance institutions

H_{01}: Repayment history has no effect on the performance of deposit taking microfinance institutions in Kenya

Table 1.2 presents the regression model of repayment history on performance of Microfinance institutions. As presented in the table, the coefficient of determination R square is 0.043 at 0.05 significance level. The means that 4.3% of the variation on Microfinance institutions performance is influenced by repayment history. This finding is similar to Luoto et. al. (2007) in an evaluation of the effects of the implementation of a credit bureau in the microfinance sector in Guatemala using branch-level data from a large Microfinance Institution identifies a 3.3% reduction in institutional default rates after the risk bureau was established. In addition the findings are similar findings to Minnetti & Dobblas (2013) in an investigation on the consequences of lenders' information sharing using unique contract-level data from a credit bureau that serves the U.S. equipment finance industry they found evidence that lenders' information exchange has a beneficial impact on the repayment behavior of firms, reducing the incidence of delinquencies and foreclosures of loans and leases.

When financial institutions share default information, default becomes a signal of bad quality for outside banks and carries the penalty of higher interest rates or no future access to credit. To avoid this penalty, entrepreneurs exert more effort, leading to lower default and interest rates and to more lending. Disclosing information about borrowers' quality, instead, has no effect on default and interest rates, in contrast with the results of Padilla and Pagano (1997). Ex-ante competition is assumed to eliminate the informational rents of banks anyway, so that their customers' interest burden cannot be reduced further. As a result; when information about their quality is shared, borrowers have no reason to change their effort level and equilibrium default and interest rates stay unchanged. Information sharing about borrowers' quality can even reduce lending. When they share such information, banks loose all future informational rents and therefore, require a higher probability of repayment to be willing to lend. So, the credit market may collapse in situations in which it would be viable under no information sharing.

Another interesting implication is that sharing more information than just defaults reduces rather than increases borrowers incentive to perform. If high grade borrowers know that their bank will disclose not only their past defaults but also data about their intrinsic quality, the borrowers are assured that in their case, other banks will not interpret a default as a sign of low quality. Thus, to the extent that banks also share data on borrower's characteristics, they actually reduce the disciplinary effect of information sharing (Jappelli & Pagano, 2000).

Information sharing can also create incentives for borrowers to perform in line with the banks' interests. Klein (1992) showed that information sharing can motivate borrowers to repay loans, when the legal environment makes it difficult for banks to enforce credit contracts. In this model, borrowers repay their loans because they know that defaulters will be blacklisted, reducing external finance in the future.

Table 1.2 Regression model summary for blacklist repayment history

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.208[a]	.043	.022	.04237	.043	2.073	1	46	.157

a. Predictors: (Constant), Repayment history

1.3.3 Coefficients for Blacklist Repayment History

The study further determined the beta coefficients of repayment history on performance of Microfinance institutions. Table 1.3 shows that the relationship between repayment history and performance of Microfinance institutions is negative since the coefficient of repayment history is -0.267 which is less than zero. The t-statistics is -1.44 which is also negative. This demonstrates that a single unit change in repayment history causes performance to decrease by 1.44 units. The findings are supported by Behr and Sonnekalb (2012) in determining the effect of information

sharing between lenders point to a reduction in access to credit and an increase in the cost of credit .This shows that although the overall effect of credit information sharing is positive the access to credit is reduced.

Table 1.3: Coefficients for Repayment History

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.371	.015		24.334	.000
	Repayment History	-.267	.185	-.208	-1.440	.157

a. Dependent Variable: Performance of Microfinance institutions

In terms of significant associations found between repayment history and performance we reject the null hypothesis and accept the alternative hypothesis that repayment history has an effect on the performance of deposit taking microfinance institutions in Kenya. The findings are similar to Behr and Sonnekalb (2012) who found that the difference in the arrear probability between loans approved after and loans approved before the introduction of the credit registry is 3% points lower in the group of more affected SME borrowers. This effect is also economically meaningful as it represents approximately 35% of the overall sample average arrear occurrence of 8%. Changes in the interest rate can be a determinant of changes in loan performance because higher interest rates might induce greater risk-taking by clients or attract higher-risk clients. Overall, these results suggest that there is a performance improving effect through information sharing

1.3 CONCLUSIONS AND RECOMMENDATIONS

Lenders' information exchange has a beneficial impact on the repayment behavior of firms, reducing the incidence of delinquencies and foreclosures of loans and leases. This effect appears to be stronger for firms that are reputed to be less informational transparent such as small firms and riskier with lower credit ratings. They have also found that lenders' entry into the credit bureau reduces the size of contracts and increases the use of guarantees, suggesting that it is not necessarily that information sharing leads financiers to loosen lending standards.

The government needs to implement favorable monetary policies that will result to cheap credit there by making the cost of borrowing cheaper. This initiative will help in reducing the case of non-repayment of loans. Borrowers with good credit records are also able to take advantage of this information sharing to get access to more loans outside their current lenders.

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