
THE GENDER SIDE OF LENDING: ARE FEMALES BETTER BORROWERS?

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ABSTRACT

The study employs binary logistic regression analysis to investigate the gender side of lending using cross-sectional data from 198 credit unions collected from the Credit Union Association (CUA) of Ghana. Contrary to anecdotal and empirical evidence in the literature, evidence adduced in this paper underpins the conclusion that female borrowers are not better than their male counterparts. Consequently, the paper contends that lenders in Ghana should not expect any improvement in their loan repayment performance if they lend more to females. Instead, lenders who contemplate better repayment performance should strengthen their management and integrate group lending into their lending operations.

JEL: Classification: C10, C12, C13, C23, C33

Keywords: *Repayment, Credit Union, Group lending, Gender, Management*

1. INTRODUCTION

Commercial banks, savings and loans companies and credit unions (CUs) always grapple with the issue of credit risk because lending serves as the fulcrum around which the wheels of their operations revolve. Although in an effort to ameliorate the incidence of losses emanating from bad loans, these depository financial institutions have always found refuge in the use of credit scoring models, yet they are still inundated with bad loans with dire consequences for their profitability and survival.

One of the prescriptions for dealing with poor loan repayment predicament is lending more to females than males because the former are more likely to honour their obligations under any loan agreement than the latter. Accumulating evidence from studies in some countries excluding Ghana seem to lend credence to this theory (Dyar et al., 2006; Cheston & Kuhn, 2002; and World Bank, 2007). However, the question that remains unanswered is whether or not female borrowers in Ghana are better than their male counterparts. The main motivation behind the current study, therefore, is to subject the gender side of lending to empirical testing using data from the CU industry in Ghana.

The rest of the paper is divided into sections. The next section reviews literature on loan repayment and gender. This is followed by the research methodology section. Results and discussion section follows. The conclusion section ends the paper.

2. LITERATURE REVIEW

Featuring prominently in the lending discourse is gender-repayment debate. Whereas some studies adduce evidence to suggest a significant relationship between gender and repayment others have rubbished the whole debate. A collective wisdom has emerged that women's repayment rates are typically far superior to those of men (Cheston and Kuhn, 2002). Women are considered to be ideal credit targets because of their proven high loan repayment rates when compared to men (Dyar et al., 2006). D'Espallier et al. (2009) analyze gender-differences with respect to microfinance repayment-rates using a global dataset covering 350 microfinance institutions in 70 countries and report that microfinance institutions with more women clients exhibit *lower* portfolio-at-risk, lower write-offs, and lower credit-loss provisions, all things being equal. Armendariz &

Morduch (2005) report that Grameen Bank shifted their focus from men to women due to repayment problems they encountered with the former. Hossain (1988) reports that in Bangladesh 81 percent of women encountered no repayment problems compared to 74 percent of men. Khandker et al. (1995) also present a finding that favour women. In their study, they find that 15.3 percent of Grameen's male borrowers had repayment problems compared to only 1.3 percent of the women. Reports from countries such as Malawi and Guatemala also confirm women as superior to men in terms of loan repayment (Hulme, 1991; and Kevane & Wydick, 2001). The World Bank (2007) has observed that experience has shown that repayment is higher among female borrowers, mostly due to more conservative investments and lower moral hazard risk. Women are more likely to pay the high interest rates required by many microfinance institutions since they are more restricted in their access to the formal labour market (Emran et al. 2006).

Many reasons have been given to explain the superiority of women over men relative to loan repayment. The conservativeness or prudence of women in their investment strategies has been cited as one of the reasons (Todd, 1996). Sensitivity of women to peer-pressure and interventions of loan managers has been put forward by Rahman (2001) and Goetz & Gupta (1996) as one of the reasons for laudable women repayment records. Prospects of having access to credit as and when needed coupled with limited sources of credit has also been advanced as one of the motivators of appreciable repayment records of women (Aghion & Morduch, 2005). The basic argument behind lending to women is that they are good credit risks, are less likely to misuse the loan, and are more likely to share the benefits with others in their household, especially their children (Garikipati, 2008)

Notwithstanding the above empirical results, there are studies that challenge the validity of superiority of women borrowers over their male counterparts in terms of loan repayment. Bhatt & Tang (2002) find no significant relationship. The study of Godquin (2004) in Bangladesh indicates that correlation between gender and repayment is positive but not significant. On the basis of the above review, the following hypotheses are proposed:

H₁. The proportion of female borrowers of a CU in Ghana is positively associated with a high repayment rate

H₂. The proportion of male borrowers of a CU in Ghana is positively associated with a high repayment rate

3. RESEARCH METHODOLOGY

3.1 The Study Context

Between Ivory Coast and Togo in West Africa lies Ghana, on the Gulf of Guinea. Ghana covers a distance of 672 km from south to north and 540 km from east to west. Ghana has a population of about 23,108,000 divided across 10 regions. Per the 2000 population census, Ghana's population has been growing at the rate of 2.4% per year. Evidence from the census indicates that 69% of Ghanaians are Christians; 15.6% Muslims; 8.5% Traditionalists; and others 6.9%. Furthermore, the census indicates that 43.4% of those who are three years old or older have never been to school and 49.9% of the adult population of 15 years or older are totally illiterate (www.ghanaweb.com).

At the end of 2008 Ghana's external debt to GDP% was 26.8%. Her poverty headcount index% was 29% as at the end of 2006, having dropped from 52% in 1992 (www.worldbank.org/ida). Ghana's GDP growth at constant prices as at the end of the year 2009 was 3.514% whilst GDP Per Capita was US\$ 671.33. As at the end of July 2010 Ghana's inflation rate stood at 9.46%.

Females constitute 51% of Ghana's population with the remaining 49% being males. Of the 74.8% in Ghana, male literacy rate is estimated at 82.7% whilst that of females is 67.1% (www.ghanaweb.com).

3.2 The Model

The repayment performance of a CU is the prediction of the model and it is about whether or not a CU records high or low repayment performance. The variable repayment (RPMT) is a dummy variable. Therefore, it is set to '1' if the CU records 50 percent or higher repayment performance in the financial year. It is set to '0' if a CU records less than 50 percent repayment performance. The main independent variables are the number of female borrowers (FBORROWERS) and the number of male borrowers (MBORROWERS). Group lending is included as a control variable because group lending (GLENDDING) has been found to enhance repayment performance of an institution (Coleman, 1999). It is a dummy variable; therefore, it is set to '1' if a CU practices group lending and set to "0" if a CU does not. Size of management (MGTSIZE) is used to proxy loan screening, monitoring and enforcement. Also included in the model as a control variable is age (AGE) which is used to proxy the

lending experience of a CU. It is also a dummy variable which is set to “1” if a CU is 10 years or older and set to “0” if a CU is less than 10 years old. Deposit (DEPOSIT) is used to proxy the size of a CU. It is a dummy variable which is set to “1” if a CU records five hundred Ghana cedis worth of total deposits or higher and set to “0” if a CU records less than five hundred Ghana cedis worth of total deposits.

To test the significance of the hypotheses stated above, the following model is proposed:

$$RPMT = \alpha_0 + B_1FBORROWERS + B_2MBORROWERS + B_3MGTSIZE + B_4GLENDING + \beta_5AGE + \beta_6DEPOSIT + \mu$$

Where: RPMT= Repayment rate of the CU

FBORROWERS= number of female borrowers of CU

MBORROWERS= number of active male borrowers of the CU

MGTSIZE= Size of management of CU

GLENDING= Group lending of CU

AGE = the number of years CU has been in operation

DEPOSIT = the total deposits of CU in the financial year

μ =the unobserved credit union-specific effect.

α and β = Constant and regression coefficient, respectively

Regression analysis has at least two advantages for the study of repayment performance. One, regression analysis with many independent variables enables the researcher to measure the marginal effect of one determinant of repayment performance holding other variables constant. Two, regression analysis makes it possible to test the significance of a coefficient and, thus, get a statistical measure of reliability of a determinant of performance. It also makes it possible to build confidence intervals around coefficients which is especially relevant when coefficients correspond to elasticities (Crombrughe et. al., 2008).

3.2 Sample and Data Source

The study used cross-sectional data from 198 CUs out of the 299 CUs that submitted data on their 2008 financial year operations to the CUA of Ghana. The data covered the critical dimensions of CUs' operations. The nature of the study required that the data be edited for completeness because, upon inspection, some data were incomplete and needed to be excluded from the study. After editing the data using the variables needed for analysis as the criteria, 198 CUs were found to be suitable for the study and were, therefore, used. The choice of 2008 financial year data was informed by the fact that, as at the time of the study, they were the latest data CUA had compiled on active CUs in Ghana.

4. RESULTS AND DISCUSSION

The predictive power of the model represented by Cox & Snell and Nagelkerke R^2 lies between 25 percent and 35 percent. The results in Table I indicates that the number of female borrowers of a CU has a weak negative association with its repayment performance. This implies that hypothesis H_1 is not supported. This finding is in sharp contrast with empirical studies which copiously uphold women as superior to men in terms of credit-worthiness (Cheston & Kuhn 2002; Armendariz & Morduch, 2005; Hossain, 1988; Khandker et al.; Hulme, 1991; Kevane & Wydick, 2001; and World Bank, 2007). Rather, the finding confirms the argument of Bhatt & Tang (2002) and Godquin (2004) that females are not better borrowers. Capacity-building programmes aimed at educating female borrowers on how to appropriate loans could help improve the repayment performance of females. Pursuit of group lending could also be of help.

The number of male borrowers has a weak positive relationship with repayment but this is not statistically significant. Hypothesis H_2 is, thus, unsupported. This finding is not surprising because the literature supports the view that men usually have abysmal record in credit performance. It is suggested that to improve men's credit performance microfinance institutions should aggressively pursue group lending.

Group lending has a strong positive association with repayment performance of a CU in Ghana. This is significant at $p < .005$. The strong correlation between repayment performance and group lending is in tandem with the position of the group lending literature. The current study reinforces this position by providing

additional evidence from the CU industry in Ghana. The implication of this finding is that CUs that adopt group lending methodology are likely to record remarkable improvement in their repayment performance.

Size of management has a weak positive association with repayment performance. This occurs at $p < .005$ which is statistically significant. The positive relationship between the size of management and repayment performance corroborates the assertion of Klein (2002) which argues that large boards allow directors to specialize and that greater specialization can lead to more effective monitoring role. In addition, the finding challenges the work of Mersland & Strøm (2009) that most corporate governance mechanisms have little impact on microfinance institutions' financial and outreach performance. It appears that CUs that have more persons in managerial positions enjoy specialization which leads to the effective monitoring of their loans. Emblazoned on this finding is the basis for CUs to appoint more of their members into managerial positions as this is likely to enhance their repayment performance. As co-operatives, CUs' operations have thrived on the committee system. Thus, more managers will mean more committees which will guarantee specialization with resultant improvement in overall performance, all things being equal. This is more important where the size of a credit is big which calls for specialization of functions in order to achieve efficient and effective performance. The size and the lending experience of a CU have a negative association with its high repayment performance. However, this is statistically insignificant.

Table 1 here

5. CONCLUSION

Incontrovertibly, evidence adduced in this paper underpins the conclusion that contrary to anecdotal and empirical evidence in the literature, female borrowers are not better than their male counterparts. Consequently, it is the contention of this paper that lenders in Ghana should not expect any improvement in their loan repayment performance if they lend more to females. Instead, lenders who contemplate better repayment performance should strengthen their management and integrate group lending into their lending operations.

The data utilized in this study are from Ghana. Besides, the data relate to only one period. Therefore, the findings and conclusions of the study should be cautiously generalized. Academic purpose will be best served if future researchers apply the model to data from other jurisdictions. That notwithstanding, the paper is useful because it provides evidence to reinforce the position of the few studies that challenge the hackneyed position of the literature that females are better borrowers than males.

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VARIABLES	B	S.E.	WALD	df	Sig.	Exp(B)
FBORROWERS	-0.001	.002	0.083	1	.773	0.996
MBORROWERS	0.002	.002	1.514	1	.219	1.002
MGTSIZE	0.111	.057	3.805	1	.051	1.118
GLENDING	0.686	.350	3.857	1	.050	1.987
AGE	-0.133	.333	0.160	1	.689	0.875
DEPOSIT	-0.156	.409	0.146	1	.703	0.855

Table I: Logistic Regression Analysis of Credit Unions' Repayment Performance

Notes: FBORROWERS, number of female borrowers; MBORROWERS, number of male borrowers; MGTSIZE, size of management of a CU; GLENDING, dummy variable representing group lending; AGE, dummy variable representing the lending experience of a CU; and DEPOSIT, dummy variable representing the size of a CU.