Interaction Effect Between Loan Officers' Characteristics and Loan Default Rate on Crowdfunding Approval

Wilfred Felix Kavishe, NsubiliIsaga and Daudi Pascal Ndaki
Department of Accounting and Finance, MzumbeUniversity
**Author corresponding Email: wilfred.kavishe@mu.ac.tz and wilfredkavishe@gmail.com*
DOI: https://doi.org/10.61538/pajbm.v8i1.1499

Abstract
MicroFinance Institution (MFI) officers screen loans for a prosocial crowdfunding campaign in developing economies. However, loan officers' screening decision is influenced by loan officers' default rate, hence the loan officers are likely to focus on the better borrowers. However, crowdfunding emerged to provide finance to entrepreneurs who are less likely to meet the loan screening requirements. Thus, this study examined the interaction effect between loan officers' characteristics and loan defaults on crowdfunding approval. We usedordered logistic regression to primary data collected from loan officers in microfinance institutions that are registered by the largest prosocial crowdfunding platform Kiva asfield partners. The study found a significant interaction effect of loan officers' default rate and gender, experience and crowdfunding awareness. Thus, the results implied that, the demographic characteristics of the loan officers are interacted by the loan officers' default rate when deciding to approve a loan for a crowdfunding campaign. Therefore, the findings recommended imparting loan officers with techniques that will help them keep a low default rate and those loan officers with a low default rate should work on crowdfunding approval

Keywords: *Crowdfunding Approval, Microfinance institutions and Loan Officers, Loan Default Rate*

INTRODUCTION

Access to finance is integral in the development of entrepreneurial activities, but literature shows that, small businesses have been marginalized in accessing funding in banks(Cosh et al., 2009; Hoff & Stiglitz, 1990; Kortum & Lerner, 2001). Isaga (2018) highlights that, the main reason for entrepreneurs' failure to access funding in banks is due to their inability to meet bank's loan screening requirements such as collateral and financial information. This findingis supported by the FinScope (2023) survey which shows that only 16.7% of the economically active population in Tanzania have access to banks. Despite entrepreneur challenges in meeting the bank's loan screening requirements, Ihua (2009) show that small business are information-opaque, thus, making it even more difficult to producefinancial

reports required by banks when applying for a loan. This suggests that challenges in accessing funding are mainly caused by entrepreneurs' lack of collateral and financial information.

Microfinance institutions (MFIs) arose to serve entrepreneurs who are marginalized by banks due to the failure to provide sufficient financial information or collateral by providing microloans (Morduch, 1999). MFIs emerged with the aim of serving businesses that were formed out of necessity by impoverished entrepreneurs who are unable to meet bank loan screening requirements. (Morduch, 1999; Randøy et al., 2015). With this objective MFIs have decentralized the loan approval process to loan officers so as to enhance entrepreneurs' access to loans (Armendáriz de Aghion & Morduch, 2010; Stein, 2002). Therefore, loan officers are able to interact with prospective borrowers and generate soft information to mitigate the financial information gap(Boot & Thakor, 2000; Canales & Greenberg, 2016). Consequently, MFIs are able to serve entrepreneurs who are not able to provide financial information or have insufficient collateral.

Despite, the MFI success studies underline that MFIs are capital constrained, because contrary to other financial institutions, MFIs low access to deposits or debt (Bogan, 2012; Dorfleitner et al., 2017). Thus, they rely on grants, donations, subsidies and owners' equity to provide loan to borrowers (Minton & Schrand, 1999; Tchuigoua, 2014). Grants and donation form the main part of MFIs since they are the inexpensive source of capital(Tchakoute-Tchuigoua, 2010). However, they are not easy to acquire, thus, studies such as Stiglitz and Weiss (1981) show MFIs are capital-constrained and often entrepreneurs' requirements exceed MFIs ability. Thus, Cull et al. (2007) and (Strøm et al., 2014) suggest that, MFIs' objective of targeting penurious borrowers may be impaired. Consequently, there is a need for MFIs to access capital that will enable them to focus on marginalized entrepreneur.

Crowdfunding provides an opportunity for MFIs in developing economies to access finance via the crowdfunding platforms such as Kiva(Dorfleitner et al., 2019). MFIs plays the third-party role in crowdfunding platform by endorsing borrower to the platforms. The platforms partners with MFIs (field partners) to help them collect information on the prospective borrowers. Therefore, the prospective borrowers apply for a crowdfunded loan through a field partner (MFIs). Then, the loan goes through the MFIs screening process, if approved the loan will be uploaded to the crowdfunding platform and if not the loan will be declined. Dorfleitner and Oswald (2016) show that loan officers in MFIs successful selects good loan since the repayment on the

platform is better than the industry repayment. Furthermore, the screening process may also be helped by the training the platform official provide to loan officers (Flannery, 2009).

As loan officers approves a loan for a crowdfunding campaign an entrepreneur gets funded who would have been otherwise be rejected due to insufficient capital in MFIs(Dorfleitner et al., 2019). Therefore, crowdfunding enables MFIs to reach more clients that would have been impossible to fund. However, it is the same officers who fund the conventional loans that approve the crowdfunding, and little is known about the loan selection process for crowdfunding campaigns. This study examined the interaction effect between loan officers' characteristics and loan defaults on crowdfunding approval.

LITERATURE REVIEW

Theoretical Literature Review

The theoretical foundation of this study is based on the theory of screening, and signalling which establishes the theoretical link in conceptualising the relationship between crowdfunding approval and the loan screening process which are the major concepts of this study. Stiglitz (1975) defines screening as the identification of different qualities among loans, individuals, bonds, equities, and brands. Thus, for this study loan screening will be the identification of the qualities of the prospective borrowers. The outcome of the loan screening will be loan approval for qualified borrowers or a loan denied for borrowers who do not meet the loan requirement (Cole & Sokolyk, 2016; Han et al., 2009).

Identification of the qualities that fit loan approval or loan denial is the challenge that loan officers face on their daily activities. The screening theory is concerned with the identification of qualities that differentiate individuals (Arrow, 1973; Stiglitz, 1975). According to this theory, individuals with different characteristics will perform differently. For instance, Stiglitz (1975) individuals that are more skilled or more productive will be awarded higher wages compared to those that are less skilled or less productive. Furthermore, the theory shows that screening enables matching individual skills to where they can be more productive. In the context of this study the Loan officers are the screening devices as termed by Stiglitz, (1975) because, they sort the qualities of loan applications. Furthermore, with crowdfunding in play the loan officers have to choose to finance the approved loan via convectional loans or a crowdfunding campaign and thus, match borrowers' qualities to MFIs loan and crowdfunding loan.

The loan officer must pick the right signals from the borrowers' information to successfully match the loan application to normal loan or a crowdfunding loan,however, borrowers do not produce sufficient information (Stein, 2002). Furthermore, Information asymmetry is a challenge to funders on crowdfunding platforms; therefore, they depend on the decisions made by loan officers to make the funding decision (Courtney et al., 2017). Thus, loan officers' approval signals the funders on the platform that the loan is of good quality, that is the loan officers at all time pressured to pick the correct signals. According to Spence (1973), high-quality prospective borrowers distinguish themselves from low-quality prospects. Thus, signalling theory is essentially concerned with reducing information asymmetry amongst two parties (Spence, 2002). This theory fits the context of this study as the loan officers must be in a position to pick the right signals from MFIs and borrowers to be able to distinguish high-quality prospective borrowers from low-quality prospects.

The signalling theory and screening theory has been widely used in different contexts to explain how decision-makers under uncertainties rely on the signals of the information available to make investment decisions (Dobbs et al., 2008). In the context of crowdfunding signalling theory has been used to study the characteristics of MFI as signal to funding success in crowdfunding platforms (Anglin et al., 2019; Dorfleitner et al., 2019). This study used the theory to link Loan officers' characteristics and crowdfunding approval decisions.

EMPIRICAL LITERATURE REVIEW

During the screening process the loan officers do not use or perceive the same information in the same way or systematically(Bertrand & Burietz, 2023; Carr & Steele, 2010). These studies suggest that decisions may be influenced by individual characteristics, emotions, or threats (Bacha & Azouzi, 2019; Behr et al., 2020; Cole et al., 2015). Furthermore, literature suggests that loan officers behave differently as their default rate increases (Cao et al., 2016; Cole et al., 2015).When a loan defaults it indicates that the officer failed in the screening process thus as the default rate increases the loan officers will focus on better borrowers to reduce it (Cao et al., 2016). Literatures shows that among others one of the main reason for loan defaults in MFIs is the inability of the loan officers to identify a bad loan during the loan screen(Bertrand & Burietz, 2023; Brock & De Haas, 2023). Empirical studies measure loan default as percentage of the loan that defaulted to the total loans issued (Anglin et al. 2019). High default rate signals risk to the MFIs, thus, they work to minimise it.

Dorfleitner and Oswald (2016) compare MFIs' Kiva loans and other MFIs' loans and found out that the loans on the Kiva platform are less risky than the other loans on the MFIs' portfolio indicating that the loan officers are strategically selecting loans with lower default probability so that they lower the Kiva default rate and eventually Kiva risk rating. Dorfleitner and Oswald (2016) suggest that default rates are positively associated with future default, therefore borrowers of such MFIs are more likely to default. It is with this regard that Anglin et al. (2019) and Dorfleitner and Oswald (2016) findings indicate that MFIs' default rate is significant and negatively associated with funding on crowdfunding platform.

Default Rate and Loan Officers' Gender

Female loan officers perceive or use information differently compared to male. Bertrand and Burietz (2023) preconceived opinions significantly affect gender and that prejudice affect female officers more. That is concepts of loan defaults or staggering repayments affect the decision of female loan officers more as the do to male loan officer. Furthermore, Literature reveal that the gender of the loan officer is significantly influenced by default rate (Powell and Ansic, 1997; Croson and Gneezy,2009). Thus, Meyers-Levy and Loken (2015)show that female loan officers are more risk averse than their male counterpart. Consequently, studies show that when loan applicants characteristics are held constant female loan officers are more likely to reject a good loan (Brock and De Haas, 2020). Thus, when gender is interacted with default rate it may negatively influence the loan screening. The situation may worsen in crowdfunding since literature show that those who access funding via crowdfunding platforms are less likely to be approved for funding in conventional lending (Mollick, 2014; Mollick and Nanda 2016)

H_1: *Default rate negatively influence loan officers' gender on crowdfunding*

Default Rate and Loan Officers' Experience

Studies show that as the experience of loan officer increase the ability of the loan officer to identify good loans increase (Van Gool et al., 2012). That is, as they age in lending business their ability to screen loans improve, they can detect signals of a bad loan better as through the years screening loans they acquire skills of sensing loan signals. Because of the skills they acquire in experience, Cao et al, (2016) show evident that the experienced loan officer is less likely to be affected by negative penalties the are imposed by MFIs. Similarly Dittmar and Duchin (2016)show that experience have stronger effect on individual, meaning if a loan officer approved a risky loan in the past and it was filly repaid all similar loans in the future will be approved

regardless of the default rate. In this regard experienced loan officers are less likely to be affected by the default rate. However, as loan officer default rate increases the loan approved by the loan officers are more likely to be denied by the supervisors and therefore experienced loan officers may focus on small loans and crowdfunding as default rate increases.

H_2: *Default rate positively influence loan officers experience on crowdfunding approval*

Default Rate and Loan Officers' Education

Financial literacy significantly affect individuals ability to make financial decisions (Amari & Jarboui, 2018). Furthermore, Mandell and Hanson (2009) show that financial education is highly associated with improved financial behaviour. Additionally, A person's educational level is indicative of their receptiveness to change and their inclination to recognize and assess innovative alternatives. Thus, these studies suggest that financial education and trainings improves loan officers screening ability. Indicating that, as default rate increase loan officers with high levels of education will be more risk averse (Sheila, 2011; Canales and Greenberg 2016). These findings can be linked to Iyer et al. (2016) that shows professionals are more likely to deny a loan that would have been successful on crowdfunding platform. similarly, Mollick and Nanda (2016) shows that, untrained individuals "crowdfunders" are as wise professionals in the loan screening. The difference in crowdfunders approval and professionals maybe induced by higher degree of risk in the crowdfunding projects. Thus, suggesting professionals are risk averse and therefore likely to reject any loan that signals risk despite of its potential.

H_3: *Default rate negatively influence loan officers' education on crowdfunding approval*

Default Rate and Loan Officers' Rank

Studies show that loan officers of lower ranks are more risk averse than those of higher raking. Similarly, decisions made by higher ranked loan officers are less likely to be affected by negative penalties (Brock and De has 2020; Cao et al 2016). Thus, as default rate increase the loans are more likely to be denied by lower ranked loan officers and hence loan that may fit crowdfunding setting may be completely dined or channelled through normal MFIs lend. Consequently, supervisors are more likely to approve loan for crowdfunding that were initially approved for a normal MFIs lending by a lower ranked loan officer.

H_4: *Default rate positively influence the rank of loan officers on crowdfunding approval*

Default Rate and Crowdfunding Awareness

De León and Mora (2017) shows that crowdfunding usage is positive and significantly associated with crowdfunding awareness. Similarly Vergara (2015) and Sırma et al. (2019) shows that crowdfunding is widely used when the the individuals are aware. However, MFIs literatuter shows that when individuals have high default rate they are less likely to approve risky loans(Cao et al., 2016). And crowd funding literature shows that the projects on the platforms are riskier and less likely to be funded on convectional lending.

H_5 *Default rate negatively influence crowdfunding awareness on crowdfunding approval*

METHODOLOGY

This study used a cross-sectional design with primary data being collected via a structured questionnaire. The decision to use a survey was based on several grounds. First, a survey is more appropriate to a piece of research in which the individual is studied as a unit of analysis; it is also a tool for measuring individual attitudes and characteristics (Creswell & Creswell, 2017); Second, a survey provides a quick, efficient and accurate means of assessing information about the population, and it is more appropriate where there is a lack of secondary data (Hair Jr et al., 2019). In this case, secondary data concerning the relationships between characteristics of loan officers and loan approval is not fully available. Thus, surveying to gain information about the aforementioned variables is essential.

The population for this study was the loan officers in the MFIs that were the Kiva field partners platform and thus the unit of analysis. For this study, the loan officers are the individuals who screen and approve loans, these are the loan officers and their supervisors (Brock & De Haas, 2020). The population of loan officers is 520, which is the total number of loan officers in the 13 MFIs that are engaged with Kiva.

The study employed a stratified random sampling procedure to select respondents for the survey, to ensure objectivity in selecting the sample. This sampling procedure was selected because the loan officer's population contains supervisors and ordinary loan officers, therefore if simple random sampling is used the probability of leaving out the supervisors is high. Thus, stratified sampling technique increases the chances of supervisors being selected for the study. We created two strata, the first stratum for loan officers and the second for supervisors. Then we requested the names of the

loan officers from their respective human resources officers to create a sampling frame. Yamane (1967) formula en= $N/1+N(e^2)$ where N is the population size and e is the margin of error was employed to arrive at a sample of 227 that was used for this study. Thereon, weighted average was used to determine who many loan officers each MFI contributed to the study. Since loan officer's supervisor formed 16% of the population the same rate was maintained in the sample, that is, the stratum of the loan officers gave remaining 84%. Thus, from the stratum of loan officers, 191 officers were randomly selected from 437 and the like was done for the stratum of supervisors. Henceforth, a sample of 227 was arrived

The design of the questionnaire adopted from Vergara (2015) and other questions were formulated from the literature reviewed. The questionnaire was divided into four parts. The first part consists of questions aimed at seeking information on the demographic characteristics of the loan officers in terms of age, educational level, and experience. The section also comprises questions aimed at uncovering the motives behind loan approvals. The second part consisted of questions that were to provide information about crowdfunding awareness. This was followed by part three, which covered information about the MFIs characteristics and the decisions of the loan officer. The questionnaire ends with part four, which provides additional information on loan screening and crowdfunding approval.

Variables

The dependent variable of this study was crowdfunding approval. Crowdfunding approval in this study meant that the loan had been endorsed for crowdfunding (Kiva 2021; Anglin 2019). Thus, it is a binary variable, however, due to the unavailability of the secondary data on crowdfunding approval, for this study crowdfunding approvals was measured on the loan officers' likelihood to approve the loan for crowdfunding. Therefore, the dependent variable for the study was discrete variable measured from strongly disagree to strongly agree

To study this interactive effect, the model included independent variables as the product of default rate and the following variables. The first was gender a binary variable measured on a scale 1 for female and 0 for male(Gafni et al., 2020). The second is experience was measured in the number of months served in the MFIs industry (Andersson, 2004). The third was education which was measured on the highest level of education completed by the loan officer. Furthermore, education specialization was measured on respondents major in college such as; finance, business or any other major (Mandell &

Hanson, 2009). In addition to education training was included in study to measure its effect on crowdfunding approval, training was measured by 0 to see if the loan officer had not received training and 1 otherwise. Job rank was the fifth variable where 0 was for officers and 1 for supervisors. The seventh variable was the crowdfunding awareness where 1 measured if the loan officer was aware of crowdfunding and 0 otherwise (Vergara, 2015).

The study adhered to ethical standards and the code of ethics. Furthermore, the study obtained permission to carry out the study from the relevant authority in the MFIs. The study-maintained confidentiality on the information gathered as the study collected information from competing MFIs.

Data analysis involved four main phases, namely: data preparation, descriptive analysis, regression analysis and hypothesis testing. Data preparation was carried after the field work and all 227 questionnaires were recorded. Thereafter, descriptive and ordered regression analysis was carried out in STATA 17.Ward (2013) suggests that, STATA is preferred to IBM SPSS statisticsfor econometric analysis while IBM SPSS statistics is good for data preparation, management and data cleaning.Thus, the study used IBM SPSS statistics 25 for data entry, management and data cleaning, then when the data was ready for and econometric analysis they were imported to STATA 17. Thirty-three (33) respondents who responded to the question "If you are reading this, please do not respond to this question" that aimed to test if the respondents were reading and understanding the question before they responded were left out of further analysis.

The dependent variable of the study "crowdfunding approvals" was a categorical variable, thus, ordered logistic regression analysis was used to study the relationship between the dependent variable and the independent variables. According to Wooldridge (2002) and Wooldridge (2015), it makes no sense to approximate a dependent variable that takes a small range of values as a continuous variable which suggested ordered logistic regression as a suitable regression analysis for this study because it uses maxim likelihood to estimate the model.

Ordered logistic regression is a parsimonious and sensible model in studying the relationship between the dependent and the independent variables in this study because it considered the ordering of the likelihood of crowdfunding approval from likely to unlikely (Cameron & Trivedi, 2005; Wooldridge, 2002). Therefore, the model of the study was;

$$y = \beta_1 X_1 \pm \beta_2 X_2 \pm \beta_3 X_3 \pm \beta_4 X_4 \pm \beta_5 X_5 \pm \beta_6 X_6 \pm \beta_7 X_7 \pm \varepsilon$$

Where; Y = Crowdfunding approval, X_1= Default rate * Gender, X_2= Default rate * Education, X_3= Default rate*Education specialization, X_4= Default rate * Rank, X_5 = Default rate * Experience, X_6 = Default rate * Training, X_7 = Default rate * Crowdfunding awareness.

Findings and Discussion

The findings section started the analysis by exploring the descriptive findings. Table 1 below shows the that the loan officers' population were well educated and the majority were female. Furthermore, it was found an average of two years of experience and 15.5% of the sample were supervisors. Moreover, it was found an average default rate among the respondents to be 1.4%. Interestingly, the findings showed that a just above average crowdfunding awareness. The study expected to find high percentage of crowdfunding awareness since Flannery, (2009) platforms train loan officer from time to time. This result may be contributed to the fact that an average experience is two years and the largest platform Kiva had paused most working of the MFIs in Tanzania at the time of data collection.

Table 1: Descriptive Analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
CF Approval	192	3.266	1.12	1	5
Gender	194	.639	.481	0	1
Edu level	194	3.521	.923	1	5
Edu spec	194	3.608	.864	2	5
Job rank	194	.155	.362	0	1
Exp	194	24.294	20.702	1	120
Training	194	.088	.283	0	1
LO rate	194	1.427	.95	0	5
CF Awe	194	.557	.498	0	1

Source: Field data (2023)

The aim of this objective was to examine the interactive effect of the default rate on the loan officers' characteristics in approving loans for a crowdfunding campaign. Findings showed that as the loan officer's default rate increase loan officer tend to avoid risky loans and focus on better borrowers. Therefore, crowdfunding approval is modelled as a function of the product of loan officer's default rate and loan officer's characteristics. Table 2 below shows the regression estimates of the model.

Table 2: Ordered Logistic Regression Analysis Output

					Number of obs	192
					LR chi^2 (7)	140.90
					Prob > chi^2	0.000
Log likelihood = -200.17026					Pseudo R^2	0.2603

CF_Approval	**Coef.**	**St.Err.**	**t-value**	**p-value**	**[95% Conf**	**Interval]**
gerat	-1.841836	.2422591	-7.60	0.000***	-2.316655	-1.367017
Edu_levelrat	-.1079026	.1025703	-1.05	0.293	-.3089367	.0931314
Edu_specrat	-.084152	.0978045	-0.86	0.390	-.2758453	.107414
Job_rankrat	-.0366256	.3174112	-0.12	0.908	-.6587401	.5854889
Exprat	.015911	.0079026	2.01	0.044**	.0004221	.0313998
TrainingRat	.5239701	.4798383	1.09	0.275	-.4164956	1.464436
CF_awerat	1.345543	.2593272	5.19	0.000***	.8372707	1.853815
cut1	-8.358894	1.106447			-10.52749	-6.190298
cut2	-2.205899	.3261517			-2.845145	-1.566654
cut3	-.5367416	.2728149			-1.071449	-.0020343
cut4	1.424781	.303968			.8307217	2.018839

**** p<.01, ** p<.05, **

Source: Field data (2023)

The parameter for the interaction of gender and default rate is negative and highly significant. The study found out that there was a strong effect of the interaction of gender and default rate on the probability of approving a loan for crowdfunding since the interaction parameter was strongly significant. Thus, suggesting that the default rate impact a male or female loan officers' decision to endorse a loan for a crowdfunding campaign. Since the interaction parameter was negative, it was found out that the interaction parameter negatively influenced crowdfund approval. Thus, the findings support the first hypothesis of the study. This meant that a loan was less likely to be approve if the loan officer was a female and had a high default rate. This may be so, because, crowdfunding literature showed that those who applied for loans in the platform were less likely to be funded in the conventional lending since they portray to be risky(Agrawal et al., 2015; Allison et al., 2015). This finding is also supported by MFIs literature that showed women to be more risk averse than their male counterpart(Brock & De Haas, 2020).

The parameter for default rate and experience was positively significant at 5%. The study found a significant association between the interaction parameter and the probability of approving a loan for a crowdfunding campaign. Furthermore, it was found out that the parameter was positive, thus, suggesting that the default rate had no impact on loan officers' experience in approving loans for crowdfunding campaign. Therefore, we found support for the second hypothesis of the study. Thus, crowdfunding campaign is more likely to be approved when the loan officer is experienced. This is supported by the MFIs literature that showed that experienced loan officers were not affected by negative incentives(Cao et al., 2016). However, the descriptive data showed a low experience among loan officer thus reducing the chances of crowdfunding approval.

With exception to training all interaction between default rate and education parameters were negative and insignificant. Thought the parameters were insignificant there was a negative association between the interaction of default rate and education parameters and the probability of approving a loan for a crowdfunding campaign. Thus, suggesting that, increase in default rate was associated with a crowdfunding loan being rejected by highly educated officer. However, the parameter for training interaction term was positive indicating that training loan officers on crowdfunding might help in getting more loans approved for crowdfunding since, the interaction was still positive. Contrary to other MFIs literature such as; Dittmar and Duchin (2016) and Mandell and Hanson (2009), this may be due to the fact that crowdfunding approval does not rely on professional knowledge as shown by Iyer et al. (2016), thus, giving us insight to why the training term was positive.

The interaction term between the default rate and job rank was negative but insignificant, suggestion that there was weak association between the interaction parameter and the likelihood of approving a loan for crowdfunding campaign. Despite the parameter being insignificant the negative sign informs us of an inverse relationship between the interaction term and crowdfunding approval. That is, supervisors were less likely to approve a loan for crowdfunding as default rate increase. This finding might be insignificant due to the small number of supervisors who took part in the study.

The interaction term between default rate and awareness was positive and significant which was contrary to the hypothesis expected. This means that crowdfunding awareness was not negatively affected by the loan officers'

default rate. That is regardless of the loan officers default rate a crowdfunding campaign was likely to be approved by the officer who was aware of crowdfunding. This funding support De León and Mora (2017)who showed that crowdfunding usage was a mainly influenced by crowdfunding awareness.

CONCLUSION AND RECOMMENDATION

Crowdfunding plays an important role in improving access to finance entrepreneurs by MFIs ability to fund more loans. This scenario is only applicable if loan officers approve more loans to crowdfunding platforms. Thus, the study investigated the effect of the interaction between the loan officers' characteristics and loan default rate on crowdfunding approval. Though, prudence is essential in approving loans for crowdfunding Kiva data showed repayment rate on the platform is 96% and the platform did not require the MFIs to pay for the loans that defaulted. Thus, MFIs through loan officers can keep approving loan while controlling for its own default rate since it is important for entrepreneurs that are affiliated with the MFI to successfully be funded on the platform. Therefore, loan officers need not to worry about their default rate as they approve a loan for crowdfunding. However, the findings of this study showed that, female loan officers worried about their default rate and were more likely not to approve a loan for crowdfunding. Thus, more crowdfunding training is required for this situation to change since findings showed awareness was not affected by the loan officers' default rate.

On the same regard, the interaction of experience and default rate did not have a negative effect on crowdfunding approval. Thus, experience was not affected by default rate and the more experienced loan officer the more likely he was to approve a loan for crowdfunding. However, studies showed that, there was high turnover in MFIs, thus reducing the probability of encountering a highly experienced loan officer consequently reducing the chances of crowdfunding approval. Therefore, to improve crowdfunding approval MFIs need to figure a way of retaining their loan officer.

Awareness like the experience interaction term is not affected by the default rate. Thus, it is concluded that as the loan officer is aware of crowdfunding his/her default rate does not matter in approving loans for crowdfunding. Therefore, it is concluded that crowdfunding in Tanzania had a chance regardless of the loan officers default rate. Hence, it was important for the Government and the MFIs to create strategy that would ensure crowdfunding

awareness amongst its loan officers. This would improve the chances of an entrepreneur to be approved for a crowdfunding campaign.

This study only looked at the indirect model where MFIs were the field partners but there was a direct model in the platforms like Zidisha working in Tanzania, thus future studies might look into factors affecting funding in that platform and compare the direct and indirect model.

ACKNOWLEDGMENT
This study was supported materially and financially by DANIDA Fellowship Centre Via Crowdfunding for Youth Entrepreneurship in Tanzania (C4YET) project

REFERENCES

Agrawal, A., Catalini, C., & Goldfarb, A. (2015, Sum). crowdfunding: geography, social networks, and the timing of investment decisions. *Journal of Economics & Management Strategy*, *24*(2), 253-274.

Allison, T. H., Davis, B. C., Short, J. C., & Webb, J. W. (2015, Jan). Crowdfunding in a Prosocial Microlending Environment: Examining the Role of Intrinsic Versus Extrinsic Cues. *Entrepreneurship Theory and Practice*, *39*(1), 53-73.

Amari, M., & Jarboui, A. (2018). Financial literacy and information perception: An empirical analysis from the Tunisian context. *International Journal of Information, Business and Management*, *10*(4), 276-288.

Andersson, P. (2004). Does experience matter in lending? A process-tracing study on experienced loan officers' and novices' decision behavior. *Journal of economic psychology*, *25*(4), 471-492.

Anglin, A. H., Short, J. C., Jr, K., J., D., Allison, T. H., & McKenny, A. F. (2019). Third-Party signals in crowdfunded microfinance: The role of microfinance institutions. *Entrepreneurship Theory and Practice*, 1042258719839709.

Armendáriz de Aghion, B., & Morduch, J. (2010). The Economics of Microfinance, 2nd. *Journal of Asia-Pacific Business*. 5(1), 20-28.

Arrow, K. J. (1973). Higher education as a filter. *Journal of public economics*, *2*(3), 193-216.

Bacha, S., & Azouzi, M. A. (2019). How gender and emotions bias the credit decision-making in banking firms. *Journal of Behavioral and Experimental Finance*, *22*, 183-191.

Behr, P., Drexler, A., Gropp, R., & Guettler, A. (2020). Financial incentives and loan officer behavior: Multitasking and allocation of effort under

an incomplete contract. *Journal of Financial and Quantitative Analysis*, *55*(4), 1243-1267.

Bertrand, J., & Burietz, A. (2023). (Loan) price and (loan officer) prejudice. *Journal of Economic Behavior & Organization*, *210*, 26-42.

Bogan, V. L. (2012). Capital structure and sustainability: An empirical study of microfinance institutions. *Review of Economics and Statistics*, *94*(4), 1045-1058.

Boot, A. W., & Thakor, A. V. (2000). Can relationship banking survive competition? *The journal of finance*, *55*(2), 679-713.

Brock, M., & De Haas, R. (2020). Gender Discrimination in Lending: Evidence from Bankers in the Lab. 10, 25-30.

Brock, M., & De Haas, R. (2023). Gender Discrimination in Lending: Evidence from Bankers in the Lab. *American Economic Journal: Applied Economics*, *15*, 31-68.

Canales, R., & Greenberg, J. (2016). A matter of (relational) style: Loan officer consistency and exchange continuity in microfinance. *Management Science*, *62*(4), 1202-1224.

Cao, Y. J., Turvey, C., Ma, J., Kong, R., He, G., & Yan, J. (2016). Incentive mechanisms, loan decisions and policy rationing: A framed field experiment on rural credit. *Agricultural Finance Review*. 5(1), 22-29.

Carr, P. B., & Steele, C. M. (2010). Stereotype threat affects financial decision making. *Psychological Science*, *21*(10), 1411-1416.

Cole, R., & Sokolyk, T. (2016). Who needs credit and who gets credit? Evidence from the surveys of small business finances. *Journal of Financial Stability*, *24*, 40-60.

Cole, S., Kanz, M., & Klapper, L. (2015). Incentivizing calculated risk-taking: Evidence from an experiment with commercial bank loan officers. *The journal of finance*, *70*(2), 537-575.

Cosh, A., Cumming, D., & Hughes, A. (2009). Outside enterpreneurial capital. *The Economic Journal*, *119*(540), 1494-1533.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. London: Sage publications.

Cull, R., Demirgu¨ ç-Kunt, A., & Morduch, J. (2007). Financial performance and outreach: A global analysis of leading microbanks. *The Economic Journal*, *117*(517), F107-F133.

De León, I. L., & Mora, J. (2017). The role of awareness in crowdfunding campaigns: The empirical evidence for the Caribbean. 6(2), 23-29.

Dittmar, A., & Duchin, R. (2016). Looking in the rearview mirror: The effect of managers' professional experience on corporate financial policy. *The Review of Financial Studies*, *29*(3), 565-602.

Dobbs, R. L., Sun, J. Y., & Roberts, P. B. (2008). Human capital and screening theories: Implications for human resource development. *Advances in Developing Human Resources, 10*(6), 788-801.

Dorfleitner, G., & Oswald, E.-M. (2016, Sep). Repayment behavior in peer-to-peer microfinancing: Empirical evidence from Kiva. *Review of Financial Economics, 30*, 45-59.

Dorfleitner, G., Oswald, E.-M., & Röhe, M. (2019). The access of microfinance institutions to financing via the worldwide crowd. *The Quarterly Review of Economics and Finance*. 4(2), 23-28.

Dorfleitner, G., Röhe, M., & Renier, N. (2017). The access of microfinance institutions to debt capital: An empirical investigation of microfinance investment vehicles. *The Quarterly Review of Economics and Finance, 65*, 1-15.

FinScope, T. (2023). Insights that drive innovation. *FinScope Tanzania, Dar es Salaam, Tanzania*.

Flannery, M. (2009). Kiva at four (innovations case narrative: Kiva). *Innovations: Technology, Governance, Globalization, 4*(2), 31-49.

Gafni, H., Hudon, M., & Périlleux, A. (2020). *Business or basic needs? The impact of loan purpose on social crowdfunding platforms*. 6(1), 31-38.

Hair Jr, J., Page, M., & Brunsveld, N. (2019). *Essentials of business research methods*. NewYork: Routledge.

Han, L., Fraser, S., & Storey, D. J. (2009). Are good or bad borrowers discouraged from applying for loans? Evidence from US small business credit markets. *Journal of Banking & Finance, 33*(2), 415-424.

Hoff, K., & Stiglitz, J. E. (1990). Introduction: Imperfect information and rural credit markets—Puzzles and policy perspectives. *The world bank Economic Review, 4*(3), 235-250.

Ihua, U. B. (2009). SMEs key failure-factors: a comparison between the United Kingdom and Nigeria. *Journal of Social Sciences, 18*(3), 199-207.

Isaga, N. (2018). Access to bank credit by smallholder farmers in Tanzania: A case study. *Afrika focus, 31*(1). 34-39.

Iyer, R., Khwaja, A. I., Luttmer, E. F., & Shue, K. (2016). Screening peers softly: Inferring the quality of small borrowers. *Management Science, 62*(6), 1554-1577.

Kortum, S., & Lerner, J. (2001). *Does venture capital spur innovation?* Emerald Group Publishing Limited.

Mandell, L., & Hanson, K. O. (2009). The impact of financial education in high school and college on financial literacy and subsequent financial decision making. American Economic Association Meetings, San Francisco, CA,

Meyers-Levy, J., & Loken, B. (2015). Revisiting gender differences: What we know and what lies ahead. *Journal of Consumer Psychology, 25*(1), 129-149.

Minton, B. A., & Schrand, C. (1999). The impact of cash flow volatility on discretionary investment and the costs of debt and equity financing. *Journal of financial economics, 54*(3), 423-460.

Mollick, E., & Nanda, R. (2016, Jun). Wisdom or Madness? Comparing Crowds with Expert Evaluation in Funding the Arts. *Management Science, 62*(6), 1533-1553.

Morduch, J. (1999, Dec). The microfinance promise. *Journal of Economic Literature, 37*(4), 1569-1614.

Randøy, T., Strøm, R. Ø., & Mersland, R. (2015). The impact of entrepreneur–CEOs in microfinance institutions: a global survey. *Entrepreneurship Theory and Practice, 39*(4), 927-953.

Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 355-374.

Spence, M. (2002). Signaling in retrospect and the informational structure of markets. *American Economic Review, 92*(3), 434-459.

Stein, J. C. (2002). Information production and capital allocation: Decentralized versus hierarchical firms. *The journal of finance, 57*(5), 1891-1921.

Stiglitz, J. E. (1975). The theory of screening, education, and the distribution of income. *The American Economic Review, 65*(3), 283-300.

Stiglitz, J. E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *The American Economic Review, 71*(3), 393-410.

Strøm, R. Ø., D'Espallier, B., & Mersland, R. (2014). Female leadership, performance, and governance in microfinance institutions. *Journal of Banking & Finance, 42*, 60-75.

Tchakoute-Tchuigoua, H. (2010). Is there a difference in performance by the legal status of microfinance institutions? *The Quarterly Review of Economics and Finance, 50*(4), 436-442.

Tchuigoua, H. T. (2014). Institutional framework and capital structure of microfinance institutions. *Journal of Business Research, 67*(10), 2185-2197.

Van Gool, J., Verbeke, W., Sercu, P., & Baesens, B. (2012). Credit scoring for microfinance: is it worth it? *International Journal of Finance & Economics, 17*(2), 103-123.

Vergara, R. (2015). Awareness and attitudes towards crowdfunding in the Philippines. 9th Global Business Conference,

Ward, B. W. (2013). What's better—R, SAS®, SPSS®, or Stata®? Thoughts for instructors of statistics and research methods courses. *Journal of Applied Social Science*, *7*(1), 115-120.