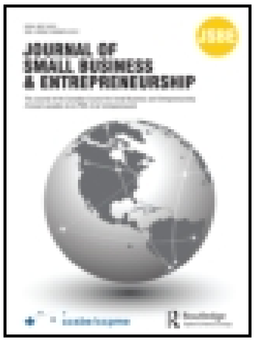

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Character-based lending for micro business development: empirical insights into conceptualizing character

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ABSTRACT

Character-based lending (CBL) is a model that considers the applicant's character over one's financial conditions to increase the borrowing opportunities for populations with low asset and low credit. The study aims to enrich our understanding of CBL in the context of high-income nations by analyzing the loan application outcomes of one CBL program in the United States that targets those who aspire to be microbusiness owners and yet do not have access to traditional funding. Using t-tests and correlation analysis, this study found that character-related applicant characteristics (e.g., personal impression) were positively associated with lending outcomes. Credit-related characteristics (e.g., financial condition) also mattered for the CBL outcomes, which prompts further research on dissecting the meaning of "character," particularly the degree to which "character" overlaps with "credit." The findings also showed that racial background, but neither gender nor entrepreneurial potential, of applicants was significantly associated with lending outcomes, which demands more qualitative insights from lenders into how they define and assess character and how that may lead to lending outcomes. These results help shape a conceptual framework that can guide the further development of CBL and its important mission in equitable community development.

ABSTRAIT

Le prêt basé sur la personnalité (PBP) est un modèle qui tient compte de la personnalité du demandeur plutôt que de sa situation financière afin d'accroître les possibilités d'emprunt pour les populations dont l'actif et le crédit sont faibles. L'étude vise à enrichir notre compréhension du PBP dans le contexte des pays à revenus élevés, en analysant les résultats des demandes de prêts d'un programme de PBP aux États-Unis qui cible ceux qui aspirent à devenir propriétaires de microentreprises et qui pourtant n'ont pas accès au financement traditionnel. À l'aide de tests t et d'une analyse de corrélation, cette étude a révélé que les caractéristiques des candidats, liées à leur caractère (par ex. impression personnelle), étaient associées positivement aux résultats des demandes de prêts. Les caractéristiques liées au crédit (par ex. la situation financière) avaient aussi leur importance en ce qui concerne les résultats des demandes de PBP, ce qui incite à poursuivre la recherche sur le décorticage de la signification du mot «

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caractère », en particulier la mesure dans laquelle « caractère » se superpose à « crédit ». Les résultats ont également montré que les origines raciales (mais ni le sexe ni le potentiel entrepreneurial des candidats) étaient associées de façon significative aux résultats des demandes de prêts, ce qui exige des prêteurs des informations plus qualitatives sur la manière dont ils définissent et évaluent le caractère, et dont ces deux activités peuvent conduire aux résultats des demandes. Ces résultats aident à déterminer un cadre conceptuel qui peut guider le développement futur du PBP et son importante mission en matière de développement communautaire équitable.

1. Introduction

A new yoga studio, an ethnic grocery store, or a juice bar. How do new micro-entrepreneurs transform their business ideas into reality? Research shows that starting businesses typically involves outside help. A Pepperdine University study showed approximately 2 out of 3 businesses[1] rely on at least one source of external funding, with 51% seeking bank business loans or business credit card financing as a source of funding (Everett 2017). The Small Business Administration (SBA) recently introduced "five fast and popular options to fund business startups," which included business credit cards, microloans, crowdfunding, credit from vendors, and personal business loans (Carbajo 2018). These options also align with the ones mentioned in "10 Ways to Fund Your Small Business"[2] in *Entrepreneur* (White and White 2017), which discussed several more options including angel investors, cloud funding, and venture capital.

While the aforementioned lists offer various options for external funding, most of the options are designed to benefit clients who already have established source of finance. In fact, only 70% businesses succeed with obtaining bank loans. The success rate drops even lower for small businesses: only 34% of small businesses received traditional funding compared to 75% of larger businesses (Carbajo 2018) as small business lending is typically associated with high risk and low return-on-investment from lenders' perspectives (Cole, Goldberg, and White 2004; Simon 2015). After the financial crisis, big banks in the United States are making fewer loans to small businesses due to high costs, with a 38% decrease between 2006 and 2014 (Simon 2015). Research has also suggested that the window of opportunity is even narrower for low-income, racial minority and/or immigrant entrepreneurs who lack assets, savings, or information (Bates, Lofstrom, and Servon 2011; Cavalluzzo and Wolken 2005; Lee and Black 2017; Servon et al. 2010).

In response to such limited options available for small and marginalized entrepreneurs, one alternative model emerged against traditional lending is "character-based lending" (CBL). The central idea of CBL is to make lending decisions based on borrowers' character rather than based on borrowers' financial conditions in hopes of helping those who are considered high risks for lenders to provide credit and business opportunities. Conceptualizing CBL as a model that aims to provide loans to who would otherwise be disqualified, the idea is currently widely spread in developing countries, typically in the context of close-knit communities, where microcredit has settled as one of the primary means of lending and borrowing. Terms such as "relationship lending," "lending based on applicant's character," exist in this regard in the context of various countries (Cole, Goldberg, and White 2004; Elyasiani and Goldberg 2004; Berger and Udell 2002). In the United States, an example such as Mission Asset Fund[3] has demonstrated a similar model, under which people who do not have credit history or collateral lend to one another and then report their transactions to credit bureaus and build a credit history (Kear 2016; Quiñonez 2015).

Despite the potential promise of CBL, however, few empirical studies exist on CBL practice in the context of a developed country. This study aims to enrich our understanding of CBL by looking into the loan application data from a CBL program in the United States that offers microloans to those who have a hard time accessing traditional funding while pursuing their entrepreneurial pursuit of starting a microenterprise.[4] Given that microenterprises make up 75.3 percent of all private-sector employers, their access to CBL bears important implications for the U.S. economy (Headd 2015). Specifically, this study examines several borrowers' characteristics that can be interpreted as "character" and how they are associated with loan application outcomes.

The next section summarizes various versions of lending criteria that exist in the market and how "character" is used in the current context. Then I discuss previous literatures that examined how certain characters are potentially related to lending decision and outcomes.

2. Conceptual framework of lending criteria

The traditional lending criteria are commonly known as "5Cs." However, multiple combinations of Cs exist. Regardless of the source, "capacity, capital, and collateral" are constant. The meaning of each of those 3Cs is as follows: "Capacity" is the extent to which someone or an enterprise can pay back the loan. Lenders consider borrower's income, employment history, and other financial obligations to assess the capacity of borrowers to pay back the loan. "Capital" is what borrower has readily available or transferrable for cash. Savings, investments, properties, and other assets belong to this category. "Collateral" is the assets that the owner or agency can offer in case of defaulting on the loan.

The final set of 5Cs are determined depending on which other two Cs are selected among "credit, character, and conditions." Some versions include "credit and conditions" while others include "character and conditions" or "credit and character." When "credit" is used, it is typically equivalent to "credit scores," which is a standardized risk assessment tool that reflects a borrower's repayment history and propensity to make future payments. Credit history is a track record that individuals have established over time, which includes a number of factors such as the number of credit lines, types and amount of credits, and payment history. These credit reports play an important role for determining "creditworthiness" of borrowers as lenders seek evidence on responsibility for paying back loans. In the United States, the credit report

Table 1. A comparison of lending criteria.

3 Cs[1]	4 Cs[2]	5 Cs[3] [Standard]	5 Cs[3] [Standard]	5 Cs[4] [Market approach]	7Cs[5]
Capital	Capacity	Capacity	Capacity	Confidence	Credit
Collateral	Capital	Capital	Capital	Competence	Character
Credit	Collateral	Collateral	Collateral	Connections	Capacity
	Credit	Credit OR Character	Credit	Capital	Capital
		Conditions	Character	Community	Condition
					Capability
					Collateral

[1]Blake (2006).
[2]Freddie Mac (2014).
[3]Depending on the sources, three sets of 5Cs are identified, one with 'credit' and the other with 'character,' and the last with both while excluding 'conditions.'
[4]Orser and Foster (1994).
[5]Turvey et al. (2011).

can be summarized into a numeric value between 300 and 850, higher scores reflecting better credit.

The term, "character," speaks to the broader nature of applicants. For example, Orser and Foster (1994) associated character with the characteristics of businesses and its owners, which include age of business, years of managerial experience of owners, and level of financial management and expertise. More recent information from various banks or investment websites (e.g., Bank of America 2018; Ross 2014) depicts character even more broadly as a borrower's personal integrity and good standing. Under "character," overall trustworthiness or general impression is important to consider. Lenders will assess factors such as a length of employment, a borrower's propensity to save, or references. A person who can demonstrate a stable background indicated by steady employment and housing, is more likely to seem trustworthy to lenders.

Lastly, "conditions" refers to the context in which loans will be borrowed and used, such as the market and the industrial climate, sectors permitted or targeted for lending, or the purpose of the loan (Wells Fargo 2018). While conditions are one of the standard 5 C criteria of lending, it is also one of the common criteria to be omitted in the abridged versions of 5Cs, which become 3Cs or 4Cs. Blake (2006) notes that the United Kingdom uses a system of 3 Cs, which collapses "capacity" and "character" into "credit" and does not specifically address "conditions." (191) Four Cs also excludes "conditions" (Freddie Mac 2014). In contrast to these truncated versions, there is an expanded version. The discussion of 7Cs is found in the context of farm credit, which differentiates "capacity" (i.e., *ex ante* factors) from "capability" (i.e., *ex post* factors) (Turvey et al. 2011).[5] Table 1 displays various versions of multiple-C models and the lending criteria that comprise each model.

As opposed to the standard model, alternative 5Cs focus on qualitative characteristics of the borrower, which include "confidence, competence, connections, capital, and community." [See the second to the last column in Table 1] According to Orser and Foster (1994), this lending model is closely related to microlending practices, which emerged in developing countries in the 1980s, examples including Women's World Bank, Badan Kredit Kecamatan Bank (BKK), Grameen Bank, and Royal Bank. These microlenders used a different lending model from the traditional approach;

they took a "problem-solving or 'market' approach to 'fit' the loan structure to the needs of microbusiness borrowers." (15) While the standard 5Cs are based on information, the "market approach" is based on judgmental or subjective criteria (Orser and Foster 1994). The alternative criteria are described as follows:

> "Confidence" refers to the aplomb, assurance or ability to sell oneself; "Competence" refers to a organizational skill set including vision; "Connections" refers to a network of associates or business contacts; "Capital" refers to tangible and intangible assets to support the embryonic business; and "Community" refers to a range of support services, both formal and informal. (15)

Albeit in a different context, a study in the United Kingdom also discussed several lending assessment criteria that can be considered under the new 5Cs (Carter et al. 2007). For example, the authors discussed positive comments about application or general personal characteristics as important assessment criteria for making lending decisions.

3. Credit vs. character: a comparative framework for lending models

Among the criteria discussed in the previous section, "credit" and "character" can be conceptualized as two contrasting approaches: one representing objective measurement of credit risks whereas the other representing subjective evaluation of personhood. In this regard, McClanahan (2014) conducted a careful analysis of history and argued that creditors started developing quantitative, data-driven models of credit scoring as the economy was increasingly delocalized and anonymous. Such transition was also propelled by the developments in behavioral science, which provided tools to assess people's economic behavior rather than their personal characteristics or moral character. As a result, the contemporary credit scoring system emerged in the 1970s and settled as the mainstream lending criterion, which signals a salient shift in a credit regime, according to McClanahan, "from evaluation to scoring, interpretation to empiricism, narrative to statistics, morality to prediction." (37). Kneiding and Kritikos (2007) also framed the difference between the two approaches as "person-based" vs. "paper-based."

The reliance on modern credit scoring, however, raises some concerns. First, credit scoring penalizes unexpected, tragic situations. Credit scores can easily fluctuate significantly by one missing payment or other circumstances that are out of barrowers' control, such as an economic recession, an unexpected health problem, death in the family, or change in a marital status. In a situation like this, using credit scores as a main loan criterion could easily create a vicious cycle of debt: a person might have missed a few mortgage payments or utility bills due to medical bills; the credit score goes down; the low credit score may prevent him or her from accessing other capital; and only a few options remain for accessing safe capital.

Furthermore, the system of credit is not fully inclusive. Credit scoring leaves out people with limited or no credit history. It is possible that some people choose not to open credit cards, but it is usually very difficult for someone to get approved for loans without established credit. A common saying, "no credit is bad credit" or "bad credit is better than no credit" speaks to this case. In addition, the credit scoring system would marginalize people without substantive asset or credit history, which has led certain demographic groups to be particularly susceptible to rejections. Research shows that women applicants are more likely to be discouraged from applying for a bank loan than male business owners, and even if they apply, they can be held in low esteem when they do not have independent work experience or when they raise a child alone (Blake 2006; Mijid 2014). African-Americans and Latinos have shown greater difficulty acquiring loans from financial institutions for businesses than whites (Bates and Robb 2013). Likewise, similar disadvantages apply to immigrant entrepreneurs as they often lack financial resources (Wolfington 2006; Garrett 2006) as well as struggle with language barriers, cultural differences, or lack of experience with financial institutions (Paulson et al. 2006; Lee and Black 2017). For those who are not popular candidates for credit, the loans are often of smaller amounts and at higher interest rates even when they succeed in obtaining loans. The *Wall Street Journal* specifically reported that high-cost alternatives such as nonbank online lenders charge rates that average 39% to small business owners, which was significantly higher than the rates on credit cards (i.e., 12.85%) and typical banks (i.e., 5–6%) (Simon 2015).

Due to the limitation of credit scoring, there has been a recent effort to focus on character of loan applicants. With the character-based model, the interaction process between lender and lendee moves from a punitive to a facilitative transaction. The important lending principle becomes "motivation" rather than "information." The lending practices based on the person, motivation, and/or relationship has shown some success in developing countries since the 1980s where microfinance institutions started thriving and proving that the poor are also creditworthy. The similar model has also debuted in the United States when international microfinance institutions expanded their branches, some of which targeting low-income immigrant populations who do not have proper access to formal financial institutions via standard lending criteria (Widyaningrum, Bhat, and Lee 2017; Kiviat 2009; Emery and Ferrer 2014). At the same time, some Community Development Financial Institutions focused on non-immigrant locals who do not have proper access to capital as shown in the example of the Opa-locka Community Development Corporation in Miami-Dade County (Ortiz 2017).

Despite the precedents, however, CBL still is a minor in the league. Two decades ago, Orser and Foster (1994) described that the CBL approach was as at a preliminary stage of development and that CBL data was scattered and mainly qualitative. Since then, regretfully, there has been scant research into CBL models. Most importantly, there is no research that has attempted to understand the CBL outcomes in relation to various characteristics of the loan applicants. Prior research has suggested that multiple factors can influence lending outcomes for individual applicants, including borrower-lender relationships, gender dynamics, borrowers' appearance or entrepreneurial optimism, and lenders' deliberation on the characteristics of ventures or borrowers (Duarte, Siegel, and Young 2012; Durguner 2017; Carter et al. 2007; Trönnberg and Hemlin 2014; Dai, Ivanov, and Cole 2017; Moss, Neubaum, and Meyskens 2015). While these studies imply that certain personal characteristics are potentially related to lending decision, those relations were not examined in the context of CBL.

Therefore, this study aims to examine various characteristics of loan applicants and their borrowing outcomes using an empirical data from a local CBL program in the United States. The advantage of examining this program is that we can peek into the experiences of those who sought "character-based loans" as they aspired to be microenterprise owners and yet struggled with accessing traditional loans. This research will provide insights into whether certain characteristics of applicants turn out to be significant for CBL outcomes and whether some of those characteristics can help interpret the meaning of character.

4. Method

4.1. Context

The data for this study is from a local lending program in New York State. The purpose of the program is to provide microloans (maximum US$35,000) to those who seek to start or expand a business but experience barriers to traditional funding due to a lack the credit, capital and/or collateral as well as other disadvantages such as age, criminal background, and/or inexperience. To close the gap in lending, a "character-based" microlending program was launched in 2011. The program states that its funding decisions are based on the character of the borrowers and feasibility of their business plans.

The program has gone through minor adjustments over time, but the overall structure and logistics remained the same. When applicants fill out an application, the lending program staff reviews the applications, conduct interviews, and contact references. Once applicants are accepted into the program, they are expected to participate in an eight-week business training. After the training, participants present their business ideas to the local credit union in hopes of obtaining a loan. Since the first cohort, 127 people participated in the training by the end of 2016, 53% of which were awarded loans ranging between $5,000 and $35,000.

4.2. Data

The data for this study was compiled based on three different sources of information: the participants' application packets to the business training program, the record of the interactions between the participants and the staff members, and evaluation reports from the business training program. Because the information exists in separate locations in various formats and for various time periods, additional data entry and compilation was necessary. The author and two research assistants created a new centralized dataset by compiling any available information from the original application materials (i.e., hard copies), electronic case note files, and evaluation files.

In the raw dataset, 127 people were identified as participants of the business training, 116 of whom completed training while 62 were funded. The raw data, however, did not have complete observations for all participants. A significant portion of the information in the individual application files was missing between mid-2014 and the end of 2015 due to a staff turnover. As a result, while most of the lending results ($n = 121$) were kept, only 51 observations had complete information for all of the variables of interest. Therefore, this study used data at two different scales to maximize the use of the available information: one at a larger scale with 121 observations when analyzing the lending outcomes and the other at a smaller scale with 51 observations when analyzing additional variables. T-tests were conducted to ensure the representativeness of the smaller dataset. The results confirmed that the participants with complete observations were not significantly different from those with partial observations in terms of demographic characteristics (e.g., racial background and sex), but the participants with complete observations were more likely to be funded and received higher loan amounts. This result suggests that the smaller dataset used in this study over-represents the applicants who ended up being funded by the program without over-representing certain racial or gender groups.

4.3. Variables

Variables include lending outcomes (i.e., the status of loan receipt and loan amount), the status of training participation (i.e., completed vs. withdrawn), demographic characteristics, and three assessment scores including in-person interviews, entrepreneur assessments, and information on credit scores and credit history. Below each variable is described more in detail.

4.3.1. Lending outcomes

The primary interest of this research is to examine the factors that have significant associations with lending outcomes. The outcomes were measured in two variables: (1) whether the training participants were funded or not (binary, 1 = funded, 0 = not funded), and (2) the actual loan amount as a numeric variable.

4.3.2. Training outcomes

This variable indicates whether the business training participants completed or withdrawn from the training. It is a binary variable, coded as completed = 1 and withdrawn = 0.

4.3.3. Demographic variables

Key demographic variables that were available include sex and race. Sex is a binary variable, coded as male = 1, female = 0. The original race variable has four categories, which include White/Caucasian, Black/African Americans, Hispanic, and other, but a binary variable was created for data analyses to test the difference between the lending outcomes for whites and non-white applicants. Although age is one of commonly used demographic variables, it was not consistently recorded in the applicant files and therefore was not used for this study. Albeit incomplete, available data suggests that the range of the participants' age was between early 20 s and 50 s, averaged in mid-30s.

4.3.4. Interview score

Each applicant is interviewed by a member of the program staff. The CBL program asserts that the interviews provide an opportunity for assessing the character of the applicant. Examples of the interview questions include: "Why do you wish to be an entrepreneur? What is preventing you from attaining a traditional commercial loan? How do you perform when others need your guidance in crises? What is your definition of good character?" The lower scores represent more suitable applicants. The program considers the applicants whose interview scores are below 34 "acceptable," more specifically, the scores between 0 and 17 as "The applicant clearly demonstrates the traits associated with self-employment," and the scores between 18 and 34 as "The applicant somewhat demonstrated the traits associated with self-employment." As the training program did not explicitly define character, the in-person interview scores offer the closest proxy to how "character" is perceived by program staff. In addition, interviewer's notes on how the interviewees answered the question "What is your definition of good character?" provide qualitative insights into how the meaning of "character" was interpreted by the applicants. For example, most applicants described "character" based on internal values or work ethic, using terms including "honesty," "integrity," and "hard working."

4.3.5. Entrepreneurial assessment

The CBL program developed its own entrepreneurial assessment instrument, which is a self-assessment on 20 questions that are purportedly related to one's ability to succeed as an entrepreneur. The instrument asks about applicant's behavioral patterns related to problem solving, risk-taking, networking, and decision-making. Examples of questions include: "When faced with a problem and I try to solve it, if my solution doesn't work, I'll seek another despite the difficulty." "I enjoy compelling others to do tasks or buy." "I don't mind spending a great number of hours on a job to get it done." "I enjoy building networks of contacts to gain knowledge and build relationships as a resource for success." A five-point Likert (from "strongly agree" to "strongly disagree") was used. The lower scores represent more suitable applicants. The applicants with scores below 54 are considered acceptable.

4.3.6. Credit

Because of its character-based nature, the program does not require credit scores to be submitted; rather, the applicants submit information that may influence credit, such as assets, liabilities, description of credit history (e.g., length of credit history, number of accounts, missing payments, etc.). When credit scores were available, the scores were categorized into five scales (5 = exceptional (scores 800+), 4 = very good (scores 740–799), 3 = good (scores 670–739), 2 = fair (scores 580–669), and 1 = very poor (scores 300–579). When credit scores were not available, the author assessed the credit-related information and assigned a value to match the scale. For example, if the applicant has a long, clean credit history without any missing payments, "very good" was assigned; if the applicant reported a bankruptcy or late payments, "fair" or "very poor" was assigned depending on the severity of the report.

4.4. Data analysis

Descriptive statistics were first examined. Then, variables were analyzed in two ways: (1) t-tests of each variable in relation to the binary loan outcomes and (2) correlations among variables. T-tests were used to examine whether certain demographic and character or credit-related characteristics made significant differences in loan

Table 2. Descriptive statistics.

Variable	N	%	Mean	Std. Dev.	Min	Max
Training outcome (completed = 1, withdrawn = 0)	121		.901	.29	0	1
Funded (funded = 1, non-funded = 0)	121		.50	.50	0	1
Loan Amount	121		15587.11	16638.07	0	35000
Gender (male = 1, female = 0)	121		0.49	0.50	0	1
Race						
Total	121					
White/Caucasian	74	61.16				
Black/African American	28	23.14				
Hispanic	12	9.92				
Others	7	5.79				
Interview score	51		21.38	8.44	17	56
Entrepreneurial Assessment	51		30.93	6.53	20	54
Credit	51		2.41	.92	1	4

outcomes. Correlations were checked to examine the statistical significance among all variables, including the relationship between character- and credit-related variables.

5. Findings

5.1. Descriptive statistics

The results of descriptive statistics are shown in Table 2. Among those who were accepted to the business training, approximately 90% of the participants completed the training while about the half of the training participants were funded. The average loan amount was $15,587 while a majority (~75%) of loan recipients received maximum amount of $35,000. The participants represented both genders close to equally. In terms of the racial categories, the majority (~60%) of the participants were white/Caucasian, with 23% black/African Americans and close to 10% Hispanic populations. The applicants of this lending program were more diverse than the nationwide profile of the typical micro business owner, which comprised 83% white ownership and 20% female ownership among firms with smaller than 10 employees (U.S. Census Bureau and Survey of Business Owners 2012).

The interview scores ranged between 17 and 56, with an average of 21. Given that the data only included people who were accepted to the program, it is not surprising that the average interview score is on the lower end, which implies that the program staff considered the applicants' character suitable for self-employment. The entrepreneurial assessment score also showed a similar pattern: the average was on the lower end, which implies that the participants showed suitable characteristics to pursue business. The credit-related characteristics, however, showed a wider range from "very good" to "very poor." Approximately 50% of the participants showed "good" or "very good" while the other half showed "fair" or "very poor" credit-related characteristics. None of the applicants had "exceptional" credit. Given that the program aspires to be a "character-based" and that it targets applicants who struggle to receive traditional loans, it is understandable that the applicants' credit characteristics showed a wide range.

5.2. T-tests and correlations

The t-test and correlation results are shown in Tables 3 and 4, respectively. The t-tests showed that the lending outcome (i.e., whether the applicants were funded or

Table 3. Comparison of binary lending outcomes using t-test.

	Funded		Not funded			
	Mean	Std. Dev.	Mean	Std. Dev.	t	p
Training outcome	1.00	0.00	0.82	0.05	−3.60	0.01
Gender	0.55	0.50	0.44	0.50	−1.18	0.24
Race (white = 1, non-white = 0)	0.75	0.06	0.48	0.06	−3.20	0.01
Interview score	19.15	0.43	25.85	3.24	2.86	0.01
Entrepreneurial Assessment	31.01	1.01	30.71	1.92	−0.15	0.88
Credit	2.71	0.12	1.82	0.25	−3.60	0.01

Table 4. Correlations among variables.

	Training	Lending outcome	Loan amount	Gender	Race	Interview score	EA	Credit
Training outcome	1.00							
Lending outcome	0.31**	1.00						
Loan amount	0.30**	0.95**	1.00					
Gender	−0.03	0.11	0.09	1.00				
Race	0.10	0.28**	0.27**	0.08	1.00			
Interviews score	−0.48**	−0.38**	−0.34*	0.08	−0.36*	1.00		
Entrepreneurial assessment (EA)	0.19	0.02	0.03	−0.03	0.19	−0.31*	1.00	
Credit	0.22	0.46**	0.45**	0.02	0.12	−0.36**	−0.10	1.00

** $p < 0.01$.
* $p < 0.05$.

not) did not differ significantly by the gender of the applicants. But white-applicants were more likely funded than non-white applicants. The lending outcomes also differed by the interview scores and credit-related characteristics: the applicants who did better at interviews or had a better credit history were more likely to be funded. However, the lending outcomes did not differ by the applicant's self-assessed entrepreneurial trait scores.

The correlation results also suggests that the impression that the applicants make to the program staff at the interview help predicting whether the participants would finish the training successfully, whether they would receive loans, and the amount of the loan they would receive. Applicants' credit characteristics were positively correlated with lending outcomes, but not with training outcomes. In contrast, entrepreneurial assessment scores did not show significant correlations with either the training or the lending outcomes.

It is noteworthy that the credit-related characteristics showed a significant correlation with interview scores, which implies that the assessment of the "credit" may share some common characteristics with that of the "character" to some degree. Entrepreneurial assessment scores also showed a significant correlation with interview scores, but in an opposite direction, meaning that those who did well at the interviews did not necessarily show high suitability for entrepreneurship, or vice versa. This finding suggests that there is a difference between "self-assessment vs. external assessment." How the applicants think about themselves could differ from how they are viewed by outsiders. In the case of this study, the external assessment of borrowers' readiness and attitudes was a stronger predictor than the self-assessed results. Credit- and entrepreneurial- assessments did not show significant correlations with one another.

In terms of demographic characteristics, gender was not significantly correlated with any other variables, whereas being white applicants was positively correlated with doing better at the interview and receiving larger loans. However, racial background did not show significant correlations with credit characteristics or entrepreneurial assessment scores. These results implies that the applicant's race may affect the interview outcomes even when the applicants do not show significant differences in financial situation or entrepreneurial potential.

6. Discussion

6.1. Summary

This study examined the applicant characteristics of local character-based lending program and its impact on lending outcomes. The results can be summarized into three major concluding points: (1) both the "character"- and "credit"-related characteristics of applicants were positively correlated with the lending outcomes, but only the "character"-related characteristics were associated with both the lending and training outcomes, (2) "character"- and "credit"-related characteristics were mutually correlated, meaning that applicants who made better impressions in person were also likely to demonstrate more stable financial conditions, and (3) "character" can be conceptualized in multiple dimensions given that certain dimensions of applicant characteristics (e.g., race, financial stability, interviewer's impression) showed stronger associations with lending outcomes than other dimensions (e.g., gender, entrepreneurial traits). Future research can continue to identify the meaning of "character" and "credit" and some specific qualities shared between the two concepts. For example, time management or organization skills may be essential qualities for maintaining both good character and credit. Defining such sub-dimensions will help identifying unique and shared qualities between "character" and "credit."

6.2. Limitations

Given the specific scope of this study, it is important to remember that the findings from this study cannot be generalized to regular credit and lending decisions. The implications of this study are most relevant to the context in which borrowers with limited resources seek funding for microbusiness development.

Methodologically, this study bears a number of limitations due to the lack of complete and consistent observations over time. For example, as the program does not require applicants to submit their credit scores, the credit variable must rely on various forms of credit-related information, including credit scores, the length of accounts, payment history, bankruptcy, and so on. To maximize the usage of available information, the author made efforts to standardize any given information on credit, but the proxy measure reflects the author's discretion and thus bears room for error.

Another limitation lies in the over-representation of the applicants who succeeded in receiving loans. It is understandable to think that the applicants who have received the loans stayed in touch with the staff at the lending program more intimately and thus provided more thorough information about their situations over multiple contact points. Although the current findings still showed some meaningful variances among loan applicants, whether a more complete dataset could have yielded stronger or different associations among variables remains unknown.

Furthermore, the current data only includes those who were accepted into the business training and had an opportunity to apply for loans at the end of the training, but not those who did not even get into the business training. The comparison among those who did not get into the business training and others in the current data could have enlightened more or different associations among variables. In addition, qualitative insights from lenders are another type of data that were not available, which could have validated the author's interpretation of character and enriched the discussion on the meaning of CBL. For that reason, it is impossible to know if lenders had defined character in the same way that the author approached it.

6.3. Implications

This study motivates future research to examine the unique meaning of character and potentially overlapping qualities among character, credit, and entrepreneurial traits in the context of lending to small and micro businesses. Additionally, future studies can look more carefully into the validity of the self-assessed entrepreneurial score measure. Although the measure did not show statistical significance in this study, it is not clear whether the measure itself is not useful or the self-assessed nature of the measurement is likely to cause a bias. If future research continues to prove externally assessed measures to be stronger predictors for lending outcomes, then practitioners can consider developing a new measure and a new assessment method for entrepreneurial traits. Another way of testing the validity of the current measure is to consider a longitudinal trajectory of loan recipients. Since the current study did not capture the loan recipients' business outcomes after they received loans, whether entrepreneurial assessment scores at least predicts long-term business success remains in question.

For practice, this study identifies the potential benefits of CBL as well as its challenges. While the CBL program examined in this study showed that it contributed to serving more female and racial minority borrowers compared to the nationwide average, the analysis results also suggested that having good "credit" (i.e., financial assets, credit history) still mattered for obtaining character-based loans. While the conceptual marriage between "character" and "credit" (i.e., good credit implies good character, and vice versa) makes sense to a certain degree, it will be still critical for policymakers and lenders to actively engage those who would remain excluded even after the implementation of a character-focused approach. Several examples advocate for increased resources and counseling on asset-building and alternative-lending opportunities for marginalized borrowers (Birkenmaier and Curley 2009). Furthermore, the potential racial or other implicit biases that may occur during the interview process will need continuous investigation as a "character-based" approach relies on subjective, rather than, objective assessment of individuals (Burgess et al. 2007).

Considering the potential merits that CBL holds for small- and micro-business development, it will be critical to continue developing CBL models that are functional and that have clearly defined loan processes. Following the exemplary case of Mission Asset Fund and Opa-locka Community Development Corporation, lenders and human service advocates need to create community-based programs that can bridge business training and opportunities to build financial assets, which then can also lead to grow character- and credit-related capacities. Kiva, an online peer-lending program, also introduced the idea of social underwriting, which requires borrowers to invite 25 members from their personal network to lend to them first in order for their loan to be posted publicly on the website (Kim 2018). This model demonstrates that personal social underwriting can be used not only as a character reference but also an effective voucher for a higher likelihood of repayment for the larger-scale lending. Ultimately, the development of a holistic, reciprocal asset-building model will further enrich our understanding of the meaning of "character" and "credit" and its importance in lending decision making processes and outcomes for entrepreneurial success.

Notes

1. The study presents descriptive results from a survey with 1,034 privately-held businesses that are located over all regions of the United States. The businesses that participated in the survey represent a wide range of industry, employment size, and annual revenues.
2. In the article, authors discuss ways to fund small businesses through two routes: equity and debt. Under equity, business owners can use bootstrapping, self-funding, friends and family, angel investors, cloud funding, partners, venture capital, and crowdfunding. Under debt, authors suggest small business lenders, Small Business Administration (SBA) loans, and banks as potential sources of debt while warning about typical challenges associated with each option. For example, authors point out that these loan options typically require a track record, assets, a guarantee, and/or high interest rates.
3. https://missionassetfund.org/
4. Microenterprise are defined as "enterprises that have fewer than 10 employees" according to the Small Business Administration (Headd 2015).
5. Due to the risk and uncertainties involved in agricultural production, farm credit differentiates the financial capacity of a farmer in advance of awarding a loan (i.e., *ex ante*) and one's capability to pay persistently until the loan needs to be repaid (i.e., *ex post*).

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No potential conflict of interest was reported by the authors.

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